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- Fears
- Citadel
- Pinball Mania
- Wheelspin
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CD-ROMs! Like the Internet, you just can't avoid them these days. The PC has been revolutionised by this medium, as you will no doubt have noticed every time you walk into a newsagent ... most PC mags carry a cover CD every month. Some Amiga users and software publishers have realised the potential of this medium on our fave machine and it's getting bigger and bigger all the time. Our cover feature lets you in on the technology behind the CD, gives you a guide to what's around and provides you with a comprehensive directory of CD-ROM discs available for the Amiga. Over 50 CDs are included ...

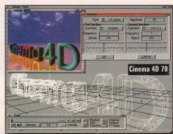


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Make some noise with the Amiga's best sound sampling and editing software, fully functioning in all its glory on cover disk 119.

PageStream 2.2 extras 12
A full dictionary and other extra files for PageStream 2.2.

Virtual Karting 13
Our games disk this month is none other than groovy kart racing with little feet at the bottom of the screen. It's fast and difficult and there's one complete track in this demo. You can also choose from four different views.

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Over thousands of the latest PD and shareware software on one CD! (Disk available on CD-ROM edition only.)

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Pinball Mania 48



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Aminet CD-ROM

● Aminet CD-ROM

The ultimate shareware archive is yours with the CD edition of CU Amiga Magazine November 1995, on a single CD-ROM. There's well over 600MBs of essential Amiga data for the price of a magazine!

You might have seen CD-ROMs on magazine covers in the past, but you've never seen one like this! If you have the CD-ROM edition of CU Amiga Magazine, you'll now be the proud owner of an Aminet CD, full of all the latest and best PD and shareware software from Amiga 7, along with this month's *AudioMaster IV* software, *PageStream* extras and game demos. There's also Tony Horgan's exclusive music sample collection and tons of 24-bit JPEG images. A good deal in anyone's book, make no mistake!

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Cinema 4D updated already! *Final Calc* released from Softwood and looking good. Also, stories from the world of games, where the new *The One* is checked out at and a crack looking tennis game from Audiogenic is revealed. Plus, comms news and more.

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● Vampyra 63

Vampyr is certainly a game girl, she just forces to dive into one of the many adventures games she receives every day.

● Snip Tips 64

Matt Broughman has a tip for everyone at CU Amiga: "My name is spelled with TWO T's not one, do you HEAR me?" God these games people are SOO impractical. Enough of Matt's tips let's see what you've sent us for us.

Editorial



So, the A1200 is back, with a new pack, Amiga Magic, and plenty of top software. Yes, the price is high, but the quality of the productivity software is beyond question. If you're going to buy one, though, I have a piece of advice. I would recommend seeking out the Hard Drive pack. Unless you already have a hard drive and are upgrading, or you need more than 170Mb and don't mind paying for a bigger drive and qualified installation (DIT will invalidate your warranty). Most of the software comes installed, including Workbench 3.1 and this will make a massive difference to your Amiga enjoyment. An extra £100 is worth it for peace of mind and you'll end up spending more later on if you don't get a HD at the outset.

Unfortunately the games in Amiga Magic leave something to be desired, but Amiga games are still far cheaper than PC or console ones so acquiring a decent collection of software will not break the bank.

We've gone up in cover price by 26p. Unfortunately increased production costs meant that keeping under £4.00 was impossible. The increase doesn't cover the whole shortfall because we don't think that you should bear the full brunt of cost increases outside your or our control. Sorry! Alan Dykes, Editor

Getting CU

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"Never look back", was the best piece of advice our mothers ever gave to us. However, there's one place where this golden rule doesn't apply: back issues of CU Amiga Magazine. You can't afford to miss a single issue of this magnificent tome. Find out more on page 124 and phone now.

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Nothing in life is ever totally reliable (apart from a Volkswagen, allegedly). But there's one thing you can make sure of for just £34 per year (UK only): a regular copy of CU Amiga Magazine delivered to your doorstep. Take out a subscription now by turning to this page and filling out the coupon.

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DISK 119

AudioMaster IV



Simply the Best!

AudioMaster IV is the only sampling software that does your Amiga justice. Wrapped up in its simple point and click interface you'll find a wealth of unique professional features that are simply not available from any other Amiga sampler. Whether you own a sampler cartridge or not, you'll come to rely on *AudioMaster* for all your sound editing requirements. Capable of ultra clean stereo sampling, state of the art special effects and complex looping, you'll wonder how you ever got by without it.

Key Features

- Time stretching
- Pitch shifting
- Freehand draw editing
- Powerful filtering
- Sequencing
- Real time effects
- Professional editing effects
- 55.9KHz stereo sampling
- Sample direct to Fast RAM

The complete package of best Amiga sound sampling and editing software ever is on this month's cover disk. It's compatible with most samplers, but you don't need one to use it. Now make some noise!

We've really pulled out the stops for this one! *AudioMaster IV* is the sampling tool of the professionals, but until now, getting hold of it hasn't been too easy. That's why we've decided to cover mount it with this month's magazine, not in a cut-down demo form, but in its entirety with all the original features enabled. *AudioMaster IV* has been developed to work on all Amigas with 1Mb of RAM or more, from Workbench 1.3 upwards. It's also intelligent enough to make good use of faster processors and extra RAM. Unlike some sampling software, *AudioMaster IV* doesn't limit you to your Amiga's Chip RAM capacity, allowing you to sample straight into Fast RAM to take full advantage of your system.

You'll need to boot from your hard drive or Workbench disk before you can load *AudioMaster IV*. Refer to page 14 for full loading instructions. If you have the CD edition of this magazine, you

can run the program direct from the CD.

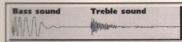
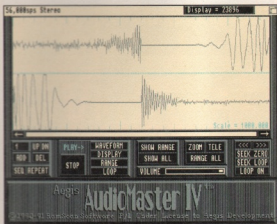
First steps

AudioMaster IV is a stereo sampler and sample editor. It works with 8 bit IFF and RAW samples for compatibility with all Amiga applications, and can also be switched to operate in mono mode. When it comes to professional editing features, *AudioMaster IV* cannot be beaten.

To get a feel for the kind of things you can do with *AudioMaster*, select Load -> To Edit Window from the Project menu. Click on the '56,000sps Stereo' file and then click OK. This is a stereo sample recorded at 55.930 KHz (CDs are recorded at 44.1KHz). It has been saved as an *AudioMaster* sequence file, so when you hit the Play -> Sequence button (beneath the waveform window) you'll see the sample played back in a pre-arranged order. It's not the most inventive drum pattern, but you can learn quite a lot from it.

The scanline shows which part of the sound is being played. The two waveforms represent the left and right channels of the sample (a stereo sample is actually two recordings, one for the left and one for the right). This example shows how different sounds look in the waveform display. The bass drum is a fairly





To do this, click on the SEQ button on the left of the panel. You should see that the Play -> Sequence but-

ton has now changed to read Play -> Waveform.

Next we'll use an option from the Effects menu. Click the Range All button to select the whole sample, and then choose Backwards -> Range from the Effects menu. You now have the option of reversing the whole sample, or just one of the channels. Click on Left to flip the left channel. You can see the results of the reversal in the waveform window. Click the Waveform

smooth wave, as it doesn't contain many high frequencies. This is typical of bass sounds. The cymbal however is mostly made up of high frequencies and these are represented on screen as lots of peaks and troughs clustered tightly together. Learning to 'see' what a waveform sounds like is an important step towards professional quality sample editing.

For now we'll disable the sequence and just work on the sample as a continuous loop.

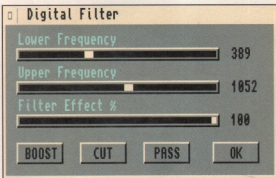
button to hear the results. Impressed? Of course you are!

The control panel

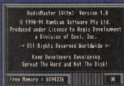
Many of the most commonly used functions are accessed from the control panel beneath the waveform. The small cluster of buttons on the far left are for setting up loop sequences (this will be covered in a forthcoming issue). Next there's the self-explanatory Stop button. Beside this are four Play buttons: Sequence/Wave, Display, Range and Loop. These play the described parts of the sound. Show Range is a quick and simple method of zooming right into the highlighted area, which is expanded to fill the window. Show All

brings the entire sample into view. The Volume slider controls the overall output volume, but doesn't affect the actual volume of the sample data. It's best to keep this at maximum, and adjust the volume on your hi fi or monitor controls.

Zoom gives you a close-up of the waveform for fine editing. Keep the left mouse button held down to zoom in to maximum magnification. Tele is used for zooming back out, and works just like Zoom but in reverse (remember that you can use Show All to snap straight back to the full wave display). The arrow buttons (marked <<< and >>>) are used to move the loop markers left and right. Click on the loop marker handles to select them. Seek Zero is used to make



A Guided Tour of the Edit Menus



Project

Starting with the Project menu we have the following options. **About:** displays some information about this version of AudioMaster and the amount of free memory. **New:** erases the current sample from memory. **Load:** loads a sample into the

waveform window or the copy buffer, and also allows you to scan the RAM for any samples that may still be there from previous programs. **Save:** saves out the sample or program configuration, while the Compressed option halves the sample rate before saving. **Snapshot:** this copies the current sample to an undo buffer. **Recall:** copies the undo buffer back into the main sample window. **Sampler:** enters sampling mode (see Sampling panel for details). **Mode:** switches between stereo and mono. **Print:** outputs your sample to a printer. **Quit:** exits the program.

Edit 1

Cut: removes the highlighted portion of the wave and moves it to the copy buffer. **Copy:** makes a copy of the highlighted area in the copy buffer. **Paste:** inserts the contents of the copy buffer at the start of the selected range. **Keep:** removes everything except the highlighted part of

the wave. **Replace:** overwrites the selected portion with the contents of the copy buffer. **Clear Buffer:** wipes the copy buffer. **Zero:** reduces the range or copy buffer to silence. **Swap Chan:** swaps the left and right waveforms. **Edit Freehand:** a very powerful feature that lets you draw the sample wave with the mouse - just drag the mouse around the wave and hold the left button to draw (use the slider to move along the wave). **Re-select** it to switch back to normal editing.

Edit 2

Cursor to Start: moves the range cursor to the start of the waveform. **Cursor to End:** moves the range cursor to the end of the wave. **Replicate Loop:** adds a copy of the current loop onto the end of the sample. **Add Workspace:** inserts blank sample space at the cursor position. **Adjust DC offset:** centralises the waveform to compensate for certain effects processes or sampler calibration problems. **Swap Buffer and Main:** swaps the sample wave with the copy buffer - re-select to undo.

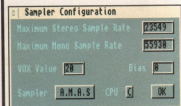


Sampling Sounds

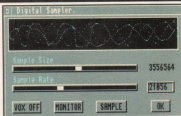
If you've got a sound sampler cartridge, such as MegaloSound or Technosound, you can use it with AudioMaster IV to grab your own samples. Most parallel port samplers are supported, so if yours doesn't seem to work at first, experiment with the Sampler Configuration controls which are available from the Options menu.

The sampling section is accessed by selecting Sampler from the Project menu. You'll see the Digital Sampler window pop up, containing an oscilloscope (or two if you're in stereo mode), a couple of sliders and a few buttons. Making sure you have an audio source plugged into your sampler, which is plugged into your Amiga, click the Monitor button and use the scope to attain an optimum input volume. The sound wave should occasionally touch the top and bottom of the scope, without flattening out (in which case it's too loud). If you get nothing but a flat line, check your cabling and sampler.

The Sample Size slider is used to select the maximum amount of memory that the sample will use. This is specified in bytes, so if you



wanted to allocate 300K to a sample, set the slider to read 300000. The Sample Rate slider is very important, as it can make the difference between a clean and a dirty sample. The scientific method of setting the sample

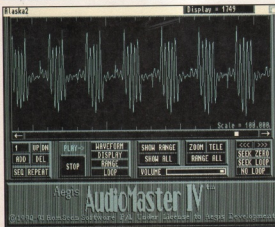


rate is to double the highest frequency that you want to record. An easier way is to write down a few numbers and stick them on your monitor. For drums and vocals, use 21056 Hz, which equates to E-3 in tracker pro-

grams such as *OctaMED*. Instrument samples are best sampled at 16726 Hz (C-3) which will allow you to play a wider range of notes when loaded into a sequencer. Use lower rates if you need to save memory.

You can also try sampling at twice the required rate, and then using the Tune Waveform feature to transpose it down by an octave (which is equal to half the sample rate). This can lead to slightly clearer samples. The Sample Rate can also be set by clicking in the box next to the slider and entering the value.

The Vox On/Off button is used for automatic sample triggering. When it's turned on, after you click the Sample button AudioMaster will wait until the incoming signal reaches a certain volume level, upon which it will start recording. If it's turned off, sampling can be started by clicking the left mouse button after clicking the Sample button. Press the left mouse button once again to stop sampling, then click OK to return to the main editor.



smooth loops. It works by shifting the currently selected loop marker left or right to the nearest part of the wave with a value of zero. Both markers need to be moved to a zero position for this to be of any use. This doesn't guarantee a smooth loop, but it helps. Seek Loop attempts to find a smooth

loop automatically, but manual looping is normally the best option. Loop on/off turns the loop on and off.

Time stretching

Time-stretching is just one of the many special effects available from the Effects menu, found

PageStream 2.2 Extras

You'll also find on cover disk 119 and the CD some extra files for last month's enormously popular *PageStream 2.2* cover disk. These files include a dictionary that enables you to make use of the spell checking functions, along with a few other additional extras to enhance your desk top publishing. The extra files are included on the floppy cover disk as a DMS archive, which when expanded onto a disk is transformed into a neat installer disk. To unpack the DMS archive, enter 'Go Pagestream' after booting the cover disk. Click the installer icon to add the files to *PageStream*.

under the

Duration/Pitch option.

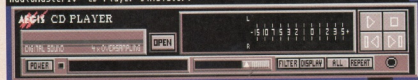
Normally changing the pitch of a sample will change its length, but time-stretching alters the pitch of a sample without affecting its length. The reverse processes is called pitch-shifting, which alters the pitch but retains the original length of the sample. Anyone who's into jungle or techno will be familiar with the sound.

When used subtly, time-stretching can bring a sound in time or in tune with the rest of a piece of music. When used with



more extreme settings, the side effects can be stunning. It works by adding or removing minute sections of the wave, which can lead to a metallic echoing effect. It's simple to use: just adjust the sliders and click on Resample Data. ■

AudioMaster IV CD Player Simulator.



Next Month

There's far too much to offer in AudioMaster IV to cover it all in this issue. Next Month we'll take a good look at the special effects, including a thorough investigation of the powerful digital filtering section.

DISK 120

Virtual Karting

A Demo by OTM

A1200 / A4000



How to load Virtual Karting

Virtual Karting will load directly off your cover disk. Before you use the disk make sure to write protect it, this will ensure the integrity of the data. Also, make a copy and keep the original safe.

A1200

Before you load *Virtual Karting* you'll need to disconnect any peripherals you may have plugged into your A1200, including PCMCIA hard drives and interfaces. This applies to all A1200s. Otherwise the game will appear to load and run properly until you press the fire button to start the game, upon which it will revert to a black screen and refuse to proceed. If you have more than 2Mb of RAM you can now boot straight from the cover disk and play the game.

2Mb A1200 users will need to disable any extra drives, including internal hard drives and external floppies. Do this with the boot options. Reset your Amiga and hold down both mouse buttons. Select Boot Options and then click on all drives in the list on the right except DFO so that they read Disabled instead of Enabled. Now click on Use, and with the *Virtual Karting* disk in the drive, click on Boot.

A4000

There's something about the *Virtual Karting* boot sequence that doesn't agree with certain A4000s. If yours doesn't boot straight from the floppy, boot the hard drive and insert the *Virtual Karting* disk. Double click the *Virtual Karting* disk icon and then the VK program icon.

25 frames per second? 50 fps on an accelerated Amiga? This game kicks dirt. Find out how with our exclusive demo.

Virtual Karting simulates go karts. Not the sort you get down the old rubber tire ringed race track mind: the real thing, 100cc and 125cc competition karts. These are used by pre-F1 drivers and can reach incredible speeds. So this is your chance to test them out.

In this demo you can only race on the Advanced track. Each race lasts up to 60 seconds (one minute, for the pedantic) and then you will exit to the startup screen again. When the game loads you



can enter the Options Screen and take a look around, but many of the settings cannot be changed. Try auto or manual gears though. Manual is a bit difficult to control, but auto is fairly smooth. Although you are limited to the 125cc kart this isn't a problem as it is the fastest.

To race you can either click on the qualify button or the race one and then, with a four second count down you begin. Use the various views set out in the box below, accessed by the F keys to find one that you are comfy with. Control is ultra simple using a joystick (the only option available in this demo). Pushing the joystick forward speeds you up, back applies the brakes. Likewise, left and right steer you in those directions. If you are using manual gears pressing fire and forward will change up, while fire and back will change down. See the panel opposite on loading *Virtual*

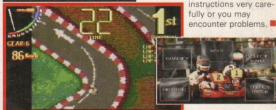
Karting. Follow the instructions very carefully or you may encounter problems. ■

View options

There are five methods of viewing your kart. Each one represents a type of camera angle and will allow you to see your 'feet' pressing the brake and accelerator. Oh yes and an overhead view too. Controls are as follows ...

- Full Screen F1.
- Big Feet F2.
- Medium Feet F3.
- Small Feet F4.
- Overhead F10.

When you view it from overhead you need to press F10 again to return to a conventional forward view.



How to load disk 119

IF YOUR DISK WON'T LOAD

We go to great trouble to ensure that the CU Amiga Magazine cover disks will work on common Amiga models. However, if you do experience problems follow this simple guide. We also vigorously vouch check our cover disks on a broadened test checks. If some escape our attention we cannot assume responsibility for it.

1. Remove all unnecessary upgrades and peripherals, such as printers and modems. Some upgrade expansions can also cause problems.
2. Follow the instructions on this and previous pages exactly.
3. If you still experience problems loading the disk call the DiskPress helpline on 0451 819 700 between the hours of 11am and 5pm Monday to Friday.

If they advise that the disk is faulty, fill in your details in the form below, and send this form, along with the faulty cover disk, and a 35p stamped self-addressed envelope to:

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DESCRIBE EXACTLY WHAT HAPPENS WHEN YOU TRY TO LOAD THE DISK:

Audiomaster IV

This month's cover disk program is compressed to enable it to fit onto cover disk 119. You will need one blank, formatted and write enabled disk to decompress *Audiomaster IV*. To do so, place a write protected copy of cover disk 119 into your Amiga's internal drive and restart it. After the Amiga boots up a screen will appear with text on it which reads "To decompress *Audiomaster* type 'go Audiomaster' (without the quote marks). Do so and then press return. Follow the on-screen prompts which will tell you when to insert the blank disk. After inserting the blank disk your Amiga will copy *Audiomaster* to it. After the message "all done!" appears on screen remove your new disk and label it *Audiomaster IV*. To use it, restart your machine, load up Workbench and insert the new *Audiomaster* disk you have just created. Clicking on the disk icon and program will launch *Audiomaster IV*.

PageStream Extras

The *PageStream* extras file is compressed to enable it to fit on to cover disk 119. You will need one blank, formatted and write enabled disk to decompress it to. To do so, place a write protected copy of cover disk 119 into your Amiga's internal drive and restart it. After the Amiga boots up a screen will appear with text on it which reads "To decompress *PageStream* type 'go PageStream' (without the quote marks). Do so and then press Return. Follow the on-screen prompts which will tell you when to insert the blank disk. After inserting the blank disk your Amiga will copy half of the program to disk. You will then be asked to put disk 119 back in the drive. Do so. Finally, after decompressing the rest of the program to RAM the on-screen text will ask you to re-insert your blank disk. After the whole program has finished copying the message "all done!" appears on screen. Remove your new disk and label it *PageStream* extras. If you have a hard drive then you can add this to *PageStream* by restarting your Amiga and, once the Workbench screen comes up, click on the disk icon which will bring up a program entitled installer. Clicking on this will install the extras to your existing copy of *PageStream* (from cover disk 117). If you do not have a hard drive and are operating *PageStream* from floppy the process is more complicated. We will explain this in detail next month.

PageStream2

- detailed 90+ page instruction manual.
- 45 additional fonts.
- requires 1.5MB memory and AmigaDOS 1.3 or newer; hard drive recommended, but not required.
- upgrade later to *PageStream3* for £110.

PageStream3

- detailed 540+ page instruction manual.
- 64 fonts plus assorted clip art.
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- just type your text and click on a button.

SPECIAL OFFER!

PAGESTREAM MANUAL & FONT SET

Get the most from your PageStream cover disk!

The October CU Amiga cover disk gave you the world's most popular Amiga desktop publishing program. If you really want to get the most from this stunning package, there's no substitute for the official *PageStream* instruction manual. It explains in simple terms how each feature works, and guides you through the creation of a document to get you up and running in minutes. You'll also receive the complete program including the spell checker, 45 additional fonts, more printer drivers and import modules. If you later decide you want more power, you can apply the entire cost of *PageStream2.2* towards the purchase of the even more feature-packed *PageStream3*.

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Emplant - Macintosh and PC emulations.

Emplant can be used with any accelerated Zorro based Amiga. With Macintosh and PC emulation modules, Emplant is the Amiga's only all-in-one emulation solution.

Macintosh Emulation Module

- A full 'generic' Macintosh with the speed dependent upon your processor.
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- Full 8-bit stereo sound. Requires Macintosh SE30/250K ROM (not supplied).
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Model shown - Emplant Deluxe

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AMIA (8086 MAC DRIVE ADAPTER) - MAC DRIVE	£99.95

e6400/5X Emulation Module

- MCA, CGA, EGA, VGA, SVGA video modes (AGA is required for VGA/5VGA).
- Sound, Floppy drives, AmigaDOS partitions, Extended Memory, and more!
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Liana

Liana is the ideal solution for a quick, easy yet efficient connection between two Amiga's. Simply plug the special cable into the parallel port and install the Emplant software. The software offers PlayStation import and export, network printing and multi-user support. The Liana network driver is completely SANA-II compatible.

LIANA

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Ariadne

Ariadne offers a simple but effective Network solution for any Zorro based Amiga.

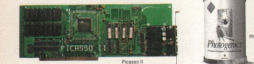
- Two extra parallel ports.
- The industry standard software solution Emvov.
- 10base-2 (Thin ethernet, coax cable) and 10base-T (Twisted pair, standard jack).
- Socket for a boot ROM and 380K CPU cache.
- SANA-II compatible driver for ethernet and parallel port.

ARIADNE

£219.95

Picasso II Bundles

PICASSO II is the leading graphics card for any Zorro based Amiga. The Workbench emulator offers 256 colours, even on non-AGA machines (Requires OS3.1) resolutions up to 1600x1280. Choose colour depths including HiColour (16 bit) and True Colour (24 bit). No "Chip RAM limitations" and an in-built Amiga video pass-through makes Picasso II the best value graphics card around!



Picasso II



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Picasso II MultiMedia Plus	As the MultiMedia pack but with MainActorBroadCast.	£529.95
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CyberGraph Software	Full release for all graphics boards	



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OS3.1

Now available for ANY Amiga! The full Escom licensed OS3.1 packs will bring your Amiga up to the very latest operating system. OS3.1 is more efficient, offers more features and is becoming necessary for many high end applications.



OS3.1 A500/600/1500/2000	£99.95
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AmiTCP

AmiTCP is the most popular TCP/IP implementation for the Amiga.

- Connect your Amiga to heterogeneous networks and the Internet.
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AmiTCP	£ 69.95
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ATAPI + CDFS

The new ATAPI+Cache CDFS package offers excellent facilities for your A4000, A1200 or A500.

- Use an ATAPI CD-ROM drive with the A4000 or A1200 or A500 IDE controller.
- The Atapi device is able to support up to 4 units with the A4000 and A1200 (not A500) With an additional special cable. This may be up to two hard-disks or any number of CD-Roms.
- This effectively adds a "second" full operational IDE port to the system.
- CachedCDFS, excellent CDFS/Cache software.
- PlayCD (audio) and CD32-Encoder.

ATAPI + Cache CDFS + CD32	£ 49.95
ATAPI Software + 4-Way Cache A4000	£ 69.95
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A1200 Acceleration

The Viper 28 Mk8 68030. Battery backed clock, 68882 co-processor, Kickstart remapping.

VIPER 28 MK II Bare	£114.95
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VIPER 28 MK II + 16Mb RAM	£639.95

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POWER XL INTERNAL 1.78Mb	£ 74.95
POWER XL EXTERNAL 1.78 Mb	£ 99.95
POWER SUPER XL EXTERNAL 3.5Mb	£119.95

Pablo Video Encoder

PABLO is the Video Encoder option for Picasso II, expanding it with two additional video ports, one standard Composite Sync Signal, and one S-VHS (Y-C) compatible port. All PAL compatible video devices can be plugged into Pablo, such as a colour TV or a video recorder.

PABLO VIDEO ENCODER	£119.95
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Amiga Computers

AMIGA

Escom's successful acquisition of the Amiga finally resulted in the emergence of new computers. We can supply the full range of machines at the best possible prices. Available from October, so why not pre-order to ensure prompt delivery or release.

A4000/40	68040 Processor at 25MHz. 2Mb Chip RAM, 4Mb Fast RAM, 1.2Gb Fast SCSI-II Hard Drive. Shipped with SCALA MM-300	£299.95
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A4000/60	68060 Processor at 50MHz. 2Mb Chip RAM, 4Mb Fast RAM, 1.2Gb Fast SCSI-II Hard Drive. Shipped with SCALA MM-300	£399.95
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A1200	68060 Processor at 14MHz. 2Mb Chip RAM	£389.95
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A1200HD	68020 Processor at 14MHz. 2Mb Chip RAM 170MB Hard Drive	£479.95
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Best Prices on Computers Guaranteed!

Doubler 4000/40

The Doubler 4000/40 50 MHz 68040 accelerator delivers across-the-board speed increases for all applications and system functions, translating into significant productivity gain. This powerful "plug and play" accelerator is 100% hardware and software compatible, since it still uses a Motorola 68040 processor. The Doubler 4000/40 includes an on-chip math coprocessor, and will dramatically speed up any application that depends on calculations. Sysinfo reports and increases from 18.75 MIPS to 31.25 MIPS. The standard A4000 to 31.25 MIPS with the Doubler installed! An integral control system ensures that the Doubler 4000 runs cool and more reliably at 50 MHz than the original processor.

DOUBLER 4000 50MHz 040	Now Low £299.95 Price
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World Construction Set

World Construction Set is a 3-D terrain modelling and animation program that offers unlimited flexibility and control. WCS provides a wealth of solutions, whether you are creating for video, film, media, commercial or scientific applications, or just for fun.

Key-framed animation, colour-mapping, unlimited scene size, detailed ecosystem control, interactive GUI and many other features.



WCS's friendly design makes it easy to create scenes with just the view you want. You can zoom in multiple windows to lay out motion paths, add colours and modify ecosystems all at the same time. Camera View shows a wire frame rendering of the scene of any animation frame. Solid objects, ecosystems, diagnostic and animation preview also be generated. Camera position and other attributes can be set interactively. Horizontal, view art, vertical exaggeration and position are just a few of them.

WCS requires OS 2.04 or greater, 4 Mb RAM (1 recommended), 200K 68030 and 1040 options versions are supplied.

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What's on Your Aminet CD-ROM

Special Edition
AMIGA
MAGAZINE



What's on your Aminet CD-ROM? What isn't on your Aminet CD-ROM! Let's face it this excellent CD has more items crammed onto it then you could possibly dream of. Both *AudioMaster IV* and the extra files for *PageStream 2.2* are included on the CD, ready to go. There's also well over 600Mb of software and data on the CD, some of which we'll draw your attention to over the next few pages.

There simply isn't enough room for us to cover everything here, so the best way to browse the whole disc is to use the Index tool. Double click the CD icon, then double click the Index icon.

This calls up an AmigaGuide document with details on every file on the disc.

Archives can be extracted to RAM, or any other writable disk you may have connected. Here's some of the highlights.

Don't Miss Aminet 8

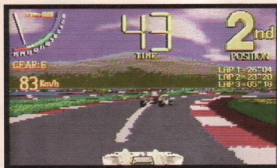
The next CD in the Aminet series is due for release any day now. Aminet 8 is an essential purchase for all CD-ROM users, and is packed full of all the latest software from the Aminet archive. Make sure you don't miss out!

Unarchiving The Files

Most of the files on the CD are archived with the popular compression system LHA. The AmigaGuide indexes have automatic archive decompression built in, making it simple for you to access the files without messing around with the Shell.

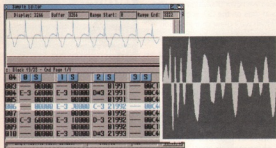
To decompress an archived group of files, open up one of the indexes, click on the highlighted text until you reach the lists of the archives. Now just click once on the name of the archive you want to decompress. The default destination for the unarchived files is the RAM: disk, and if you're happy with this, click on OK, otherwise you can change RAM: to the device of your choice. Depending on the nature of the archives, they made need to be copied to floppy disks or installed to a hard drive. Check the documents in the archive to find out.

If you run into an error during the unarchiving process, use the Prefs tool on the CD to make sure that the unarchiving tools and destinations are set correctly. If you still have problems, read the Trouble Shooting guide. Alternatively, copy the LHA file from the Tools drawer on the CD to the sys:c drawer of your hard drive and extract the file manually using LHA.



CU Amiga Magazine goodies

When you click on the icon for this month's cover CD, the window that appears will have several directories in it. Most of these are the standard drawers present on any Amine CD but one drawer will be represented by an icon with the CU Amiga Magazine logo. The drawer is called 'Magazine'. Opening up this drawer will show what goodies we added to the Amine CD including *AudioMaster IV* and the extra files for *PageStream 2.2* (last month's cover disk). Inside the drawer called 'Game_Demos' resides a selection of game demonstrations. Most of these can be activated by simply clicking on the relevant icon. *Alien Breed 3D* and *Virtual Karting* can be run this way. The *Wheelspin* DMS file needs to be unarchived, though. This will need to be done via the AmigaDOS shell with the DMS utility found elsewhere on the cover CD. *AudioMaster IV* is fully installed on the CD and can be run from here. If you want to install elsewhere, dragging the drawer would be sufficient to copy it to your hard drive. See the *AudioMaster* instructions on page 10 for more information.



Sound Samples and Music Modules

We are constantly asked by readers to supply more sound samples and music modules on our cover disks. Usually space constraints of floppy disks make this difficult, but this month is an absolute bonanza for music freaks. First of all, CU Amiga's resident techno head Tony Horgan has offered the ultimate gift: he's spooled off his entire sample collection onto the CD just for you! That's right, the contents of one of the most comprehensive Amiga dance sample libraries in the world, lovingly built up, pruned and polished over the past five years is now yours to keep. Forever! We're not sure what drove him to such a feat of amazing generosity, but we're not arguing with it! Unlike the samples you might find on most music CD-ROMs, these are all top quality, clear as a bell and dynamite on the dancefloor! To get a taste of what they can do when strung together into a tune, try out Tony's *OctaMED* modules, which are supplied both as ready to run executable files (just double click) and also as files for loading into *OctaMED*.

If it's tracker modules you're after, you won't be disappointed. You'll find a whole bunch of them in the *Mods* drawer.



PD Demos

Hours of pulsating PD demos are here too! They're arranged in eight categories: AGA, Euro, Intro, Mag, Mega, Slide, Sound and TG95. The AGA section contains demos that require the AGA chipset. Euro is home to the 'file' demos (ie. demos that are just a single file that can be run from the Workbench). Intros are small file demos, usually around 100K or less but lots of fun. The Mag drawer contains a couple of disk magazines. The Mega drawer is where you'll find demos that must be expanded onto floppies. Slide is home to a few slideshows. Sound is the place for music demos, and finally TG95 is a selection of demos from The Gathering 95 demo competition.

Many of these demos feature strobing graphics. Sufferers from Epilepsy or similar conditions are advised to be wary of these.



Disk Tools

A variety of utilities and tools are included to help you get the most from your storage devices, whether that means floppy disks, hard drives, CD-ROMs or anything else for that matter.

In the CDROM drawer you'll come across the latest version of the ATAPI device driver, which allows the connection of cheap IDE CD-ROM drives to the Amiga. In the Optim drawer there's a top disk optimiser called *ReOrg 3.1*. You can use this to rearrange the fragmented data on your hard drive or floppies, which will increase the speed at which you can read and write data. Before subjecting any device to an optimisation, make sure you have all the data backed up. If you don't have a backup and something nasty happens during optimisation (such as a system crash) you may need to call on the talents of a program such as *Disk Salv*, which can be found in the *Salv* drawer of the *Disk* section.

Games

So you want games too? No problem. Lurking in the Games drawer are hundreds of ways to make your day more fun.

Whether it's arcade action, brain-teasing puzzlers, the player mayhem or role playing adventures you're after, you'll find something here to satisfy.

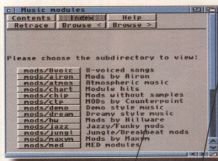
It's also worth snooping around in the Demo drawer, where you'll find demos of commercial games including all the current Doom clones, along with a demo of Bubble Gun amongst others.

Space cadets should take a look at the Shoot drawer, which contains such gems as *Deluxe Galaga 2.5*, *Scorched Tanks 1.85*, *Zombies 2* and *Xasteroids*.



Music

Musicians are catered for too, logically in the Music drawer. The Edit section contains a number of music creation and editing tools, including a tracker, a sound effects creator and editor, a tool that can read audio data directly from music CDs (requires a Mac-compatible CD-ROM), sample editing software and more. For music module fans there's a good selection of module players, including *DelitTracker*, *PowerPlayer* and *Hippo Player*. The Misc draw is an Aladdin's cave of tools and software for sound freaks, and includes a four channel 8-bit hard disk recording package, an algorithmic music generator, rippers, converters and more besides.



Utilities

Probably the most useful drawer for most Amiga users will be the Util section. Here you can find the latest versions of just about any Amiga utility you could ask for. They're organised into neat drawers depending on their functions, so it's very easy to find your way around. If you've heard about a rather good utility recently, the chances are that you'll find it here.

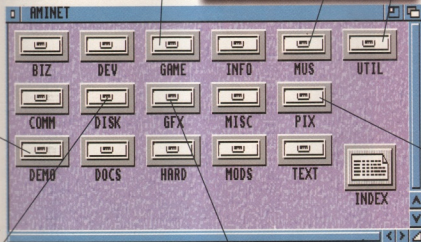
Images

This CD is also a brilliant source of high resolution images. The Pix drawer is home to some of the sharpest and most stunning images you'll have ever seen on your Amiga screen.

Most are stored in 24-bit JPEG format, and can be viewed with utilities such as *ViewTek*. To convert them to lower resolutions or reduce the amount of colours, you can either use some of the tools in the GFX/Conv drawer, or load them into programs such as *Image FX*, *AdPro* and *Photogenics*.

Due to the large size of many of the pictures, it won't be possible to view them all on a 2Mb Amiga.

Check out the Fauna and Views drawers especially for some of the most spectacular images. The two zebras shown frolicking about in the picture above is just one of the many examples of what can be found here. Aren't they lovely and cute? Ahhh. (Back to work, Ed)

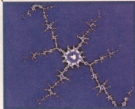


Graphics Software

If you're into rendering your own graphics, you'll love the software in the GFX drawer. In the 3D section you'll find the 3D ray-tracing program C-Light, and Dust 2.02 which has some clever tricks up its sleeve involving morphing, particles and waves. *Texture Studio* is also there for anyone who wants to render their own textures for use in *Imagine*.

Fractal generators can be found in the Fract drawer. Mandel 92 is a nice tool for drawing fractal patterns – just drag out an area of the pattern as it's drawn, press the space bar and watch the pretty patterns appear before you.

A host of graphics file converters are filed in the Conv draw, including *AutoPeg 1.55*, *GFX Con*, *GFX Lab 2.4*, *GFX Master*, *GIF Trans*, *Image Studio* and many more. Graphics viewers are also in abundance, sitting in the Show drawer of the GFX area. These are various utilities for viewing JPEGs, GIFs and MPEG movies, along with the extremely handy *ViewTek*, plus some tools for 24-bit graphics cards.



And The Rest ...

That's just a taste of what's on this month's incredible Amiga CD-ROM. There's just isn't enough space to document the entire contents within these pages, so the best thing to do is take a look at the slick AmigaGuide Index in the main CD drawer. This has details of everything on the disc, and is easy to use. You can access and unpack most of the files direct from the Index too. If you're after something in particular and you don't fancy looking through the disc by hand, use the Find tool. Enter the file you're looking for, or just the first few letters, and you'll be told if anything matching that is contained on the CD, and if so where it is and what it is.

Italian Amiga Conference

On November 18, the IPISA or 'Italian Programmers' meeting for Amiga Development' will assemble at the Conference hall of the Centro University ISU in Milan.

The conference features speeches by leading Italian Amiga developers and the attendants will receive documentation, floppy disks and an IPISA95 CD-ROM. The fee is US \$35 and the same for a printed set of Conference Proceedings via air mail. Attendees will need to book before November the 1st. For more information E-Mail Sergio Ruocco on ruocco@dsi.unimi.it or write to him at Sergio Ruocco, Via Di Vittoria 4, I-20019 Settimo Milanese.

Fourth Level Give Free WWW Pages

The UK based Amiga developers, Fourth Level Developments, distributors of the *AmiFileSafe* package and *Dice 3.0*, are to become a provider on the Internet. Of

No.1 interest to Amiga users is their generous new offer of a free WWW page on their Amiga run servers for all Amiga developers

and authors. The latter qualify if a significant program of their creation is present on the Amnet archive. The free pages will be used to create a directory of developers and authors containing personal information rather than



Super Tennis?



I'm sure I've seen this one before before. Even the name sounds familiar. Oh yeah! *Super Tennis* on the Super Nintendo. 'Best tennis game ever' according to Andy McVittie, editor of Nintendo Magazine System who inhabit the dark, back end of our office. But this game is called *Super Tennis Champs*, it's on the Amiga and it came to us in a brown paper envelope from Audiogenic software. Not due for release for a couple of months, not even ready for preview at the moment, what was available was very promising.

The game allows you to select players for singles or doubles matches from a variety of nationalities and both sexes. The sprites are cartoon-like, in a very Japanese way, and control will be via one or two button joysticks or a six-button controller. No prizes for predicting which is likely to be the best fun to play with. Watch out for this one.

advertisements of their software. If you're on the Internet, why not drop in and see who's there at www.flevel.co.uk/amiga/programmers and www.flevel.co.uk/amiga/developers.

Fourth Level have also become the UK distributors of Intangible Assets Manufacturing. This means they'll distribute the Envoy networking software, *DiskSalv 3*, *DiskSalv AFS*, the excellent 'Connect your Amiga' (£11.99) Comms book and the famous 'Commodore Death Bed Vigil' (CTBA) video filmed by Dave Haynie. For more information tel: 0117 985 4455.

Wonder Computers Expands

One of the largest Amiga-only companies on the North American continent, Wonder Computers Inc. announced an expansion of their corporate headquarters and the addition of a multimedia dealership to their company.

Wonder Computers has also added a new product development team known as Lazarus Engineering. This new team will work on Wonder's packages such as Flow, Quickwrite and DesignWorks to be bring them up to date with the latest generation of the AmigaOS.

In a surprise move Wonder Computers also announced the employment of CU Amiga Magazine's regular Stateside contributor Jason Compton as Promotional Director. Jason Compton reassured the Amiga community that he will continue to publish his famous Amiga Report electronic magazine.

Maplin Computer Brochure

Electronics distributor Maplin, whose catalogues have been compared to BR train timetables have launched a new guide specifically for computers. Looking at it, there's seems to be very little of use for Amiga users but anyone who uses SCSI peripherals or also has access to a PC or Mac may find it useful. They aim to bring out three of these catalogues per year and if you hassle them enough they might even include Amiga stuff.

Oops!

The 'ICS Multimedia Station' review in last month's issue unfortunately contained the wrong telephone number for ICS. The correct number is 01474 335294. Rest assured that the offending member of staff has had their luncheon vouchers revoked for the month.

White Knight Amiga 'Clone' Dealers

White Knight Technology, the Hertfordshire based high-end Amiga specialist, have been appointed the official UK distributor for the German MacroSystems product range. These products include the real time JPEG video editing VLab Motion card, the Toccata 16-bit 4 track, stereo direct-to-disk sound sampler and the Retina 24-bit graphics cards.

Having installed a new demonstration suite in their Hertfordshire headquarters, White Knight are inviting customers to request a full demonstration of any of their product range by booking in advance.

White Knight will also retail the

MacroSystems Draco. This is a 68060 based computer which runs the Amiga's operating system without the Amiga custom hardware. This machine includes the Retina BLT 3 graphics board for the display, SCSI capability and a CD-ROM drive as standard.

An upgrade to the Dec Alpha AXP is planned for acceleration the Amiga platform has never witnessed before. Also a 32-bit VLab motion to interface direct to the Draco's CPU will be offered. This will mean greater picture quality in real terms will less JPEG compression being needed.

Interested parties should call White Knight on 01920 822321 for further information and prices.

Termite 1.1 Released

The commercial communications terminal package, Termite, has been updated by US based Oregon Research. Now in version 1.1 this powerful communications package includes new additions such as built in Z-Modem transfers, improved ANSI emulation, jump scrolling for speed, enhanced dialler and a multitasking review buffer.

The update is available with a new manual for £10.00 or £7.50 without the new manual. A full review of the new version will feature in next month's CU Amiga Magazine. Telephone HiSoft on 01525 718181 for more information.

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Sequential SCSI Interface	£59.95	X-Link 28.8K Fax & Data Modem	£329.95
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16 bit Real-Time Colour Frame Grabbing		X-Link 28.8K Modem with GP Fax	£272.95
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Remitale 9402 SVHS	£279.95	Disk Drives	
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A500 with 5Mbit	£149.95	2.5" 340Mb Internal IDE Hard drive for A1200	£169.95
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A1200 with 1Mb	£249.95	2.5" 510Mb Internal IDE Hard drive for A1200	£249.95
A600 with 1Mb & clock	£129.95	and A500	£249.95
A1200 unpopulated	£59.95	2.5" IDE Cable	£8.95
A1200 with 2Mb	£179.95	All Hard Drives Come With Installation Software	
A1200 with 4Mb	£279.95	Other	
Modems		Nakata Greyscale Hard Scanner for Amiga 500	
X-Link 14.4K Fax & Data Modem	£129.95	and 500+	
		Tabby Graphics Tablet	
		£57.95	

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For a limited period only we're offering **Music X v2** and a **Microdeal Pro Midi interface** for just **£64.95**, a saving of **£5** over the usual prices!

Bars & Pipes v1 Manuals - the perfect companion for your cover disk! Just **£29.95**

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3.1 - 3.3 in stock now.		ASOS Pro Control	£50.95
£99.95		Morph Plus	£129.95
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Amiga Total Disk New	£21.95	Mastering Amiga Arco	£19.95
Amiga Total Assembler New	£21.95	Mastering Amiga Printers	£17.95
Amiga Total Beginners New	£19.95	Mastering Amiga Dos 3.0 Reference	£19.95
Amiga Basic - A Dabbling Guide	£17.95	Mastering Amiga Dos 2.0	£17.95
Mastering Amiga Programming Secrets	£19.95	Mastering Amiga Dos Scripts	£19.95
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Secrets of Sim City 2000	£9.95	Book & Video Packs	
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A1200 Next Steps	£12.95	Workbench 3 Booster Pack	£36.95
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Matt Broughton's Games in View

A new The One! A new Amiga! "NEWS!" shouts Matt Broughton in an embarrassingly overexcited way.

Bloody hell! Just for a change there's lots going on, but before I start I'd like to thank all the loyal ex-readers of The One who've called in to comment on the 'new' version. In case you didn't catch what happened, Maverick borrowed the rights to produce their own magazine – called The One. We sent them all the design grids, logos, etc. and then sat back waiting to see what they'd do with it. Anyway, there I was in WH Smith's, when what should I see before me but a small, thin pamphlet that was, er ... 'interesting'.

Yes, capturing all the japes and journalistic specialities that we'd spent years perfecting, this new The One seemed to take great delight in telling you things such as "well, we could do what the old The One crew used to do with this page, and simply have a bit of fun ..." but then they don't!

Anyway, enough bitter bitching, there are many other things to be talk about, not least of which is the news that a new Amiga will finally be on sale from the end of September. The Amiga Magic pack will retail at £399, and seems targeted more at hobbyists than gamers. It comes with a standard A1200, Wordworth version 4 SE,



▲ Total football. I love Sensi Soccer to the point of being sad, so I don't really care about other footy games.

Database 1.1, Organiser 1.1, TurboCalc 3.5, Personal Paint 6.4, Photogenics 1.2a SE, plus two games, *Pinball Mania* and *Whizz*. You're no doubt already familiar with *Whizz* (cause we reviewed it yonks back) while *Pinball Mania* is yet another metal ball offering from 21st Century, featuring four new tables, four flippers, and multi-ball modes.

Escom are set to confuse everyone by reserving the Commodore brand solely for PC-related products. The little devils reckon they can enter the market with PCs up to 20 percent cheaper than top brands. Unfortunately, Commodore has always been associated with the Amiga in the UK – so, er ... good luck fellas!

Blue Byte have confirmed that there will be a follow-up to the

excellent *The Settlers*, with the PC version hitting the shelves early next year. The bad news (that I'm sure you were expecting) is that *Settlers II: Veni, Vidi, Vici*, is currently only planned for PC CD-ROM. Still, you never know, eh?

Domark have revealed that a massive advertising campaign will be used to promote the sequel to the massive-selling (250,000 copies!) *Championship Manager*. CM2 is due on the Amiga before Christmas, and what with the original being the best selling footy management game to date, it should do well. There will also be data disks to follow.

On the more arcadey-side of things, *Total Football* is another Domark product; this one being developed by in-house team, The Kremlin. The game is touted as having the best animation in a footy game ever, with some 2500 frames for the players, with 50 moves all played over different kinds of pitches in variable weather conditions.

Now, you know them as *Renegade*, but Warner Interactive is the actual company responsible for the forthcoming *Chaos Engine 2*. Reported as 'shelved' by



▲ "Spare ten cents for a cup of coffee go", Matty Broughton downs and out in New York.

Maverick's The One it is in fact due for a February release. Another ex-Renegade product to have slipped yet again is *Flight of the Amazon Queen*. Originally due end September, this now looks more likely for a mid-October release. Once that's out in the shops Warner Interactive have no further Amiga products planned. Apparently, they've not finished with the humble machine, but have so many PC products on the go – along with massive guaranteed sales – that anything less than a Christmas number one has been put to the bottom of the list.

Gametek confirmed that the development nightmare known as *Frontier: First Encounters* has indeed been scrapped completely due to the technical hell of trying to cram the product into an Amiga with anything less than seven million Mbs of hard drive. No doubt thousands of *Elite/Frontier* saddies will be screaming and banging on their doors. Still, there's *Star Crusader* to look forward to at the end of October, while *Baldies* has been held back indefinitely (although things should start shifting after Xmas) due to legal problems with the developers.

And some good news to end on, is that *Super Street Fighter 2 Turbo* WILL be arriving towards the end of October, and will feature all of the super

combos, super finishing moves, and extra characters that made Gametek's recent PC version such a success. But that's the last game they're currently developing. However, Gametek will be looking at a new batch of releases sometime after Xmas, and will continue to support the machine next year. Hurrah! ■

HWY CHART ... Amiga top games

No	TITLE	PUBLISHER
1	Player Manger 2	Virgin
2	Sensible Golf	Virgin
3	Sensible World Of Soccer	Virgin
4	Ultimate Soccer Manager	Daze
5	Indiana Jones Atlantis	US Gold
6	Super Street Fighter 2	US Gold
7	UFO Enemy Unknown	MicroProse
8	Super Skidmarks	Guildhall
9	Gloom	Guildhall
10	PM 3 Multi Editor	Grenlin



▲ Super Streetfighter 2 Turbo will arrive in October, according to Gametek. Hurrah, xmasapples!

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CD-ROMS

and your Amiga



CD-ROM is today's storage technology. This feature is the culmination of all the reviews of drives and discs in CU Amiga Magazine for the last year or so. Over the next six pages we will tell you how a CD-ROM drive actually works, provide you with a brief buyers guide to the drives themselves and a guide to over 50 CDs which will enhance your Amiga enjoyment.

The Compact Disc was never intended to be a data storage medium for computers.

However, since the technology involved storing music in a digital format, it was naturally applied in this area when the mass production of CD mechanisms for audio use brought significant cost-reductions. Suddenly the medium looked very attractive to the computing world.

When the Dutch based Philips company developed the CD standard, the specification was that a CD must fit the equivalent length of music as a vinyl LP on one side. Random access was essential though speed wasn't important. Fully digitised stereo audio only needs about 150 kilobytes per second but over 75 minutes that's a lot of data. This resulted in one dense spiral of data. The data is made up of short and long

pits in the aluminium undercoat of a CD. One might be tempted to think that short pits mean binary '0' and long pits binary '1' but in actual fact a change from short to long or long to short represents '1' and no change eg. two consecutive short or long pits means '0'.

Error Correction

Further to that, the actual stream of data is spread out over a fair distance so that if a whole run of pits are obscured they would represent one lost bit in a long sequence of 'words' or groupings of 'bits'. This is known as interleaving. The automatic checksum can handle these single lost bits of data to form the first level of 'error correction'. On top of that is another encoding method called cross Reed Solomon code or CRC checking. Again this enables lost bits to be corrected. However,

tracking a microscopic spiral of pits with a laser is no easy business. Especially when all CDs spiral aren't dead centre. Special circuitry checks the strength of the signal and hunts back and forth for the ideal setting. These 'servos' as they are known, will cause the laser assembly mounted on a caterpillar like spinning screw to move back and forth rapidly as the CD spins, tracking the slightly off centre spiral. Also because this method requires the data to arrive at exactly the same rate, CDs spin slower when the laser is at the edge of a disc and faster in the centre. The speed is precisely controlled by another servo.

Focused Lasers

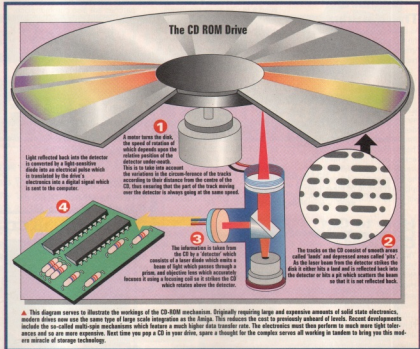
The laser itself isn't dangerous even if you looked at it directly contrary to the obligatory yellow warning stickers on all CD players. These solid state laser 'diodes' emit only a few milliwatts of power and most of this is in the infrared where they are tuned. Gently focused onto the aluminium data surface, the clear epoxy CD coating helps to focus the beam tightly. The final servo in the CD mechanism handles the focus. This means that any dust particles on the surface of the CD are out of focus which helps further to avoid data loss from surface contamination. Every effort should still be made to keep CDs free of fingerprints since skin oils can send the laser beam askew and data loss may result.

CD Cleaning Advice

If a CD needs cleaning, it should be wiped from the inside to the outside but never in a circular motion. If a hard particle of dirt is wiped over the disc in a circular motion, the resulting scratch is much more likely cause mistracking than a scratch at right angles to the spiral. Solvents should never be used. If any detergent is needed, it should be common household variety such as washing up liquid and warm water.

Amiga CD Options

The Amiga platform is no slouch when it comes to CD connectivity. Every model has some method of getting connected. We'll look at each in turn. The humble A500 was the first to gain CD capability with Commodore's own A570 A500 sidecar CD-ROM which slots



into the left hand expansion port of the A500 and A500+. These units are still available at a cost so low that some users of later model Amigas have opted to keep their old A500 and A570 combinations and run a parallel network such as Parnet to access the CD.

However, the A1200 and A600 have a much more impressive set of options for CD-ROM. There are three ways to attach a CD-ROM drive. The first is nearly identical to the A500 via a dedicated sidecar type unit jacking into the A600 and A1200s PCMCIA interface. Economical and with a high degree of CD32 compatibility they've been the long standing choice for A600 and A1200 owners. The OverDrive CD and the Power CD-ROM are two examples of PCMCIA units. The next option involves the SCSI standard. A SCSI interface must be connected and an externally boxed SCSI CD-ROM connected via a cable. There are two ways of implementing SCSI on an A1200 and one on the A600. Both machines accept a PCMCIA SCSI controller such as HiSoft's 'Squirrel', a relatively cheap and fast SCSI interface with first rate driver software. The other option and one that's not available to A600 owners is the purchase of

an add-on SCSI board for certain trapdoor based accelerators.

Some A1200 accelerators such as the Apollo 1230 actually come with a SCSI interface as standard. The last and newest method for adding a CD-ROM doesn't involve SCSI and is suitable for both the A600 and A1200. Recently CD-ROMs have emerged sporting IDE interfaces. The A1200 and A600 both have an IDE interface built in normally used for hard drives. Using the ATAPI software (reviewed last month), the Amiga can use this interface with IDE CD-ROMs. An additional benefit is that up to four devices can now be used instead of two with a special cable. An externally cased IDE CD-ROM is needed coupled with a length of IDE ribbon cable to trail out from the side of the A600 and 1200. Last month CU Amiga Magazine reviewed the ICS 'Multimedia Station' that consists of a mini-tower complete with the ATAPI package. This unit can power your CD-ROM and house cheaper and faster 3.5" hard drives if need be.

Big Boxes of CD-ROMs

Finally, the big box Amigas from the A1500 to the A4000 tower, all

possess Zorro slots that can take a plethora of SCSI controller cards that will happily work with all SCSI CD-ROMs.

The A2000 has no controller as standard so will need one of these cards, though the 'HD' unit was shipped with a built in A209x controller which sadly needs a ROM upgrade to function correctly with CD-ROMS.

Unfortunately we know of no supplier so a new SCSI controller is the best bet. The A3000 has no drive bay big enough for a CD-ROM and so it will need an external case though no controller is needed since the A3000 sports SCSI built-in.

The A4000's drive bay is a bit on the shallow side so it's worth checking the dimensions of any prospective drive before purchase. Since the A4000 also has an IDE interface, the ATAPI software can be brought to bare so a cheap IDE CD-ROM mechanism could be used requiring no special controller.

The bottom line is, CD-ROM is not the future. It's here now and it's here cheap. A CD-ROM drive coupled with a modest selection of CDs creates a software library beyond your imagination. Buy yourself a CD-ROM drive and you'll never look back.

The Aminet

As if you hadn't already noticed, the CD issue of this month's CU Amiga Magazine comes with a free Aminet CD, based on volume 7 of the Aminet series. But what is Aminet and where did all this software come from?

The Aminet is a massive store of Amiga software on the Internet. The main site is in Missouri, USA but there are many other 'mirrors' around the world. These mirrors automatically receive every new Aminet file over the Internet and add it to their own archive. Likewise a file uploaded to one of these mirrors will be sent to Missouri which will

send it in turn to all the others. The software is uploaded by Amiga developers the world over, and the entire archive is managed by Swiss Amiga fan Urban Müller.

Famously Large

One of the reasons for the Aminet's size is that it's become famous, to the point where almost anyone who writes some Amiga shareware or PD software will upload it to the Aminet knowing that the global Amiga community has access to it the very next day. Commercial developers will often release demos of their packages onto the Aminet - productivity and games alike. Commercial software upgrade

patches are also commonplace.

So what about those of us who don't have Internet access? That's where the CD-ROMs come in. Every couple of months, Urban Müller puts all the new uploads onto a CD. This makes for a few hundred megabytes of Amiga files but the mighty CD format still has much more space. So then Urban decided that with each new Aminet CD, he would introduce a theme. The CDs are then filled to the brim with every single file on the Aminet in that genre. With Aminet 7 and this month's cover CD, the theme Images. It's a killer combination and it means that many Amiga CD-ROM owners collect all the

Aminet CDs. The ease of use, accessibility and sheer value for money let alone the consistent search tool and documentation make Aminet CDs the best source of Amiga PD and shareware money can buy. You'll come to swear by your Aminet discs, whenever you need a particular file or utility, or when your collection of sound samples and pictures fail you, the Aminet will be there with a solution.

The Aminet is one of the Amiga's finest resources. Its size and organisation put archives of PC and Mac software to shame. Hats off to the Aminet and hats off to Urban Müller. Well done and keep up the good work.

How to Get Connected to CD-ROM

There are a number of ways to get your Amiga set up for CD-ROM access. The most common method at the moment revolves around the Squirrel SCSI interface which plugs into the PCMCIA port of the A1200 and A600. However, this is not an option for anyone using different Amiga models, as only the A600 and A1200 have a PCMCIA port. The arrival of the ATAPI device driver software means that there are now more options for anyone with an IDE interface connected to their Amiga.

Previously cheaper IDE CD-ROM drives were incompatible with the Amiga but ATAPI has changed all that. There's also the question of which speed of drive you should get. Standard speed CD-ROM drives are fine for most uses, but they can keep you waiting around during large directory searches. Dual, quad and six-speed drives can move the data through to the computer much faster, with obvious advantages in terms of speed, especially when you are dealing with large 24-bit images, long sound samples, sprawling directory listings and so on.

Whether the speed increase is worth the price depends on how often you plan to use the CD-ROM, and what its main uses will be. Here are some of the solutions on offer from major Amiga dealers.

HiSoft

Tel: 01525 718 181

- Squirrel PCMCIA SCSI interface for A600 and 1200£69.95

- Squirrel + Aiwa ACD-300 dual speed CD-ROM + Ten on Ten CD pack£225
- Squirrel + Quad speed CD-ROM£309

Silica Systems

Tel: 0181 309 1111

- Overdrive Quad Speed CD-ROM£249

Power Computing

Tel: 01234 273000

- Power dual speed SCSI CD-ROM£159
- Power quad speed SCSI CD-ROM£259
- Power dual speed SCSI CD-ROM + Squirrel£199
- Power quad speed SCSI CD-ROM + Squirrel£299
- GVP HC-8 SCSI controller£99

Intrinsic Computer Syst.

Tel: 01474 335294

- ICS ATAPI mini tower with dual speed CD-ROM£249.95
- ICS ATAPI mini tower with quad speed CD-ROM£299.95
- Separate Cache CD file system + ATAPI driver + CD32 emulation package£49.95

1st Computer Centre

Tel: 0113 231 9444

- Sanyo H944 dual speed CD-ROM£126.99
- NEC 6X1 6 speed SCSI CD-ROM£312.99

HiQ Limited

Tel: 01525 211 327

- PowerStation Desktop PC case + dual speed SCSI CD-ROM + Squirrel£299.95

Is Writing to CD-ROMs Possible?



CD-Write is new German software which appears to claim to enable writing to CDs. But is this the case? Make no mistake, CD-Write is definitely passing itself off as something that will allow you to write to CD-ROMs. However, it's not physically possible but what CD-Write does instead is give the appearance of files being copied of deleted to and from a CD-ROM. CD-Write patches AmigaDOS so that it may modify any accesses to the CD-ROM device/s. It then uses a scratchpad area on your hard drive where it stores

the changes, whether they're information about deleted files or complete new files that have been 'copied' onto the CD. For this reason, CD-Write has copped a lot of flack on the Internet from Amiga users denouncing it as a hoax. That's a tad unfair as it's not hard to think of uses for the software. When accessing the CD-ROM logical device name, it does indeed appear that you can write to it.

Let's say for example that your favourite CD places a massive icon in the middle of your Workbench. This would be a pain normally, but with CD-Write it could be replaced with a modest effort neatly filed away in a corner. Various windows could be changed to view by name rather than icon for quick and easy access for a lot of files. Project icon tooltypes could be changed so that their default tools point to the correct viewer or application program which normally is annoyingly literally set in epoxy.

Another use could also be for BBS SysOps who often provide on-line CDs for the punters to download. Suspect files could be deleted, however most BBS software normally keeps its own catalogue so this isn't really necessary. CD-Write is useful if you have a lot of CDs and want to make some cosmetic and useful changes but in my opinion it's not something worth shelling out this sort of money for. The main sticking point we have with it, though, is the misleading claims it makes on the box.

CD-Write is available from GTI. Tel: 0049 6171 85939.

Price: £44.95

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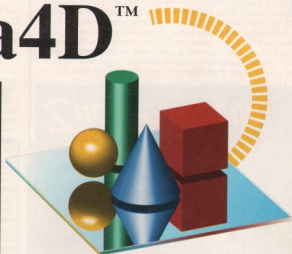
Please send me some more information on Cinema4D, and my free demo copy of the program. The demo is compatible with any Amiga running Workbench 2.04 (or higher) and with 2Mb, or more, of free memory.

Name: _____

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Post Code: _____

You can also obtain a Cinema4D demo pack by calling HiSoft, freephone, on 0500 223660



HiSoft Systems is proud to present Cinema4D - a new world of Amiga ray-tracing. Cinema4D is packed with power-user features that will satisfy even the most demanding users. Moreover, at £199 inc., Cinema4D does not carry a power-user price tag.

Cinema4D provides an easy-to-use multi-tasking editor replete with every conceivable option including window-based realtime interactive modelling, modelling directly in 3D, basic and complex primitives with uncountable variations, easy object manipulation, moveable tool, object and texture lists, definable object hierarchies, optimised versions for 68020 (A1200 etc.) & FPU's and much more!

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Cinema4D runs on all Amigas with a minimum of 3MB RAM, and Kickstart 2 or higher. Cinema4D supports all Amiga and graphic card modes (HAM, HAM8, 24-bit, etc.) and recognised file formats (Imagine, Sculpt, DXF, Reflections, etc.).

The world-beating Cinema4D is available from all good Amiga software dealers, priced at £199 inc.

If you experience any difficulties obtaining Cinema4D, you can order free by telephoning our order hotline on 0500 223660, armed with your credit or debit card or you can send us a cheque or postal orders. Please add £3 P&P for despatch to addresses within the UK, £6 for next day delivery (if goods in stock).

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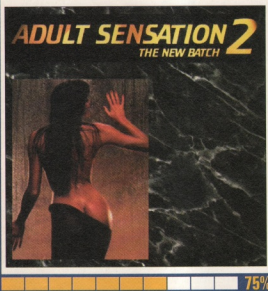
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Tel: 01793 490 988

Price: £19.99

Anyone seeking further sensations in the trouser area can check out part two of the Adult Sensation series, so long as they're over 18. The plot has changed slightly since the first instalment, as part two includes a few animations, games, stories, sound samples and jokes, generally of a rather low nature. The bulk of the disk is filled with GIF and JPEG pictures of naked and semi-naked women and there are some disturbing Japanese cartoons and horror pics. Image quality is good, but the lack of any front-end viewing system lets it down.



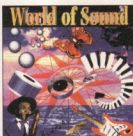
World of Sound

Supplier: US Dreams

Tel: 01483 728 397

Price: £14.95

Audio sample CDs are usually full of carefully edited and collated sounds, recorded to high standards and ready to use. CD-ROM sample discs tend to be compiled from any old rubbish the compilers can lay their hands on. World of Sound, however, is certainly better than most, but don't expect 650Mb of usable samples and modules (there's 438Mb on the disc). The samples take in sound effects, musical instruments, drums and vocals, and if you're just messing around most of them will be fine. However, anyone who's serious about producing music will be disappointed by the scratchy, noisy, quiet samples that dominate this



collection. Collectors of Amiga modules would do well to check it out as there are plenty on offer. However, if you already have a good collection of samples from the public domain, or other CD-ROMs, you may find you already have a substantial number of these samples.

Specsy Sensations 2

Supplier: Epic Marketing

Tel: 01793 490 988

Price: £17.99

We could have sat playing with this one all night (and probably right up to next Christmas) if we didn't have a magazine to produce. This, the follow-up to the original Specsy Sensations CD, is a massive collection of Spectrum games, dating back to 1982. The PD Spectrum emulator ZXAM is included on the CD, allowing you to load up and play hundreds of your old favourites. Many of these now look comically pathetic, but others have somehow stood the test of time. If you want variety, it's here by the skipload, with such diverse games as *Mad Martha 2*, *Maziacs*, *Eddie Kid Jump Challenge*, *Stunt Car Racer*, *Hungry Horace*, *Elite* and far too many others to list. It's highly likely that if you never played Spectrum games, you'll think these are utter tripe, but for nostalgia trippers it can't be beaten. You even get a few pictures of personalities from the Spectrum world.



World of Video

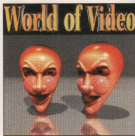
Supplier: US Dreams

Tel: 01483 728 397

Price: £14.95

Billed rather vaguely as 'The ultimate video collection for the Amiga', World of Video turns out to be a collection of PD and shareware tools for both static and animated Amiga artists, along with a good selection of animations and pictures. The disc includes a large selection of image and animation conversion utilities, video titlers, image processors, 3D rendering programs, tools for graphics

boards and plenty more besides. The trouble with this software is that a lot of it is either very basic, outdated or crippled shareware demos, so most of it isn't that much use in the form it comes on the disc. It's the smaller utilities that will be most useful, such as the conversion and viewing tools, while the animations which are included give some light relief from hunting through all the old software.



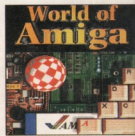
World of Amiga

Supplier: US Dreams

Tel: 01483 728 397

Price: £14.95

World of Amiga lacks a little direction, but a side effect of this is that it encompasses quite a range of software and data. Like virtually all other Amiga CD-ROMs, the data included is PD and shareware. In this case it's split into two main directories: games and data files. The games include *Amiga Boulderdash*, *Scorched Tanks 1.75*, *Mine Runner* and *Deluxe Galaga* among its highlights. The data files are split into animations, docs, pictures, 3D objects (for *Imagine* and *LightWave*), music modules (of which there are loads), Commodore 64 music modules and sound samples. There's 500Mb of stuff here, and stuff is all it seems to be, because it's



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77%

Amiga

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unlikely that anyone would want to return to this disc with any real regularity, not because the contents are sub-standard, it's just that the disc isn't as comprehensive a resource as something like the Amnet CDs, the contents of which are well balanced with all the latest versions of software and data arranged in logical order.

Many of the files on here are shared across the other US Dreams CDs reviewed in this article, and this is worth bearing in mind if you are interested in more than one disc from this series. A good disc even so.

72%

Arcade Classics

Supplier: Epic Marketing

Tel: 01793 490 988

Price: £14.99

There are plenty of PD game compilations on CD, but most of the games on them are generally disappointing. Arcade Classics, however, does have some real classics. The drawers are divided into game types, such as *Invaders*, *Asteroids*, *Platform*, *Breakout*, *Berzerk*, *Frogger*, *Hunchback*, *Lode Runner*, *Pengo* and so on. Each of these drawers contains a number of versions of these classics, archived in various

forms. Unfortunately there are no extraction tools provided, apart from the CLI versions of the relevant crunchers (LHA, DMS etc). Neither is there a menu selector or search tool. You even have to use the Show All Files option from the Workbench to see what's on the disc. This wouldn't be so bad if the data on the CD was of a more 'technical' nature, but a game collection should really be idiot proof (and a fair amount of these games crash on an A1200). Even so, there are some real gems here for fans of old style arcade games, and if you don't mind a bit of messing around with the Shell you'll have hours of fun in store.



79%

World of Games

Supplier: US Dreams

Tel: 01483 728 397

Price: £14.95

The trouble with most PD and shareware games is that they're usually written to work on the programmer's Amiga system, and if they're incompatible with others, then tough. This leads to problems when someone puts together another shovelware game collection and expects them all to work straight from the CD. World of Games comes with a simple menu front end which is fine, but many of the games just refuse to work. As the compilers usually seem to exercise minimal quality control (if any) you end up with a mass of substandard, incompatible games sprinkled with the occasional worthwhile effort. World of Games is no exception.

US Dreams also do a Top 100 Games A1200 disc, which is the same as the Top 100 Games CD32, reviewed on page 59. This has many games in common with the World of Games disc.

Grolier Encyclopedia

Supplier: Epic Marketing

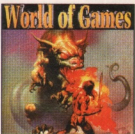
Tel: 01793 490 988

Price: £26.99

If you really want to see the world through CD-ROM then this will be rather useful. The Grolier Electronic Encyclopedia stands out like a polished gem in the mass of shovelware that dominates the CD-ROM market. It's a translation of the printed encyclopedia, originally written for the CD32 but compatible with the A1200. The bold, high resolution text and buttons can easily be read on even the most fuzzy TV, and navigating around the numerous pages is simplified with a straight-forward point and click interface. It's not overflowing with pictures, but there are enough to maintain the visual interest. CD32 owners can boot straight from the CD and control everything from the joypad.



87%



30%

Coming Soon

Emulators Unlimited is a CD dedicated to emulating different computer systems. It promises emulation software for Apple Mac, Atari ST, Apple 2000, Gameboy, Spectrum, Vic 20, Psion, Commodore 64, Amstrad, CPM, BBC, Z80, MSX and QL. We'll have a full review next month.

Sci-Fi Sensation

Supplier: Epic PD

Tel: 01793 490 988

Price: £19.99

A feast for sci-fi fans, this double CD set is full of things that make you go 'Wow!'. The first disc has digitised pictures and sounds from classic sci-fi movies, a massive drawer containing spacey music modules along with the ever so friendly Eagle Player for ease of use, objects for *Imagine*, *LightWave*, *Real 3D*, *3D Studio* and *DXF*. Add to that a good selection of games and a smattering of other bits and pieces, and that's the first disc over with. The second is devoted to animations, all of which are ready to play straight from the CD. Double clicking the icons is usually enough to start them playing automatically, either spooling from CD or from RAM when there's enough available. If you're an avid collector of PD animations, games and samples, bear in mind that as with all the PD collections reviewed here, you may well have seen, played or heard some of them before. Even so, this is a must for any sci-fi fan who likes to put their own productions together.



THE SCIENCE-FICTION CD ROM.

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91%

CD-ROM

Software Buyers Guide



Title	Description	CD Amiga rating	Reviewed	Supplier	Telephone
Express PD Galore	Collection of various PD	86%	February 95	Express PD	01162 558 711
Town of Tunes	Bodily organised module collection	35%	March 95	17 Bit Software	01824 366 982
Amiga Ray Tracing 1 and 2	Objects for most 3D rendering packages	70%	March 95	17 Bit Software	01824 366 982
Music Mods and Sound Effects	Sound samples and music modules	75%	March 95	17 Bit Software	01824 366 982
LightROM	LightWave (plus Imagine, Sculpt and Vista) data files	82%	March 95	17 Bit Software	01824 366 982
Space and Astronomy	Images and info from NASA (mainly GIF format)	75%	March 95	17 Bit Software	01824 366 982
BCI Net	Collection of archived PD software and data	80%	March 95	Better Concepts Inc (USA)	001 914 629 5005
Professional Clipart and Fonts vol 1	PD fonts and clipart collection	70%	March 95	PD Soft	01702 466 933
GoldFish vol 1	PD from Fred Fish disks nos. 1 to 1000	84%	March 95	Epic Marketing	0793 490 988
Gold Fish vol 2	PD from Fred Fish Collections 1 to 7	85%	April 95	PD Soft	01702 466 933
Power Games	500 PD games	78%	April 95	PD Soft	01702 466 933
Ultimedia 1 and 2	Two-disc clipart and sound sample collection	85%	April 95	PD Soft	01702 466 933
Clip Art .GIF Professional	Collection of GIF format clipart	82%	April 95	PD Soft	01702 466 933
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Sounds Terrific	Sound sample and music module collection	75%	April 95	PD Soft	01702 466 933
Hottest 4 Professional	Demos, games and slideshows as DMS archives	60%	April 95	PD Soft	01702 466 933
Assassins Collection	PD games from the Assassins compilations	80%	April 95	PD Soft	01702 466 933
Multimedia Toolkit	Audio and visual clips with a good menu system	70%	May 95	Weird Science	01162 340 602
Beauty of Chaos	Fractal-generated pictures	76%	May 95	PD Soft	01702 466 933
Imagine Enhancer	Imagine fonts, backdrops, objects and attributes	87%	May 95	Gorden Harwood	01773 836 781
Art Backgrounds Collection A	Quality backdrops stored in PhotoCD format	91%	May 95	Field of Vision	0171 263 5054
Weird Science CD Clipart	Good structured and bitmapped clipart	85%	May 95	Weird Science	0116 234 0682
3D Arena	Objects and data for Imagine, LightWave, Real 3D	79%	May 95	Almathera	0181 687 0040
The Light Works	Objects and data for Cinema 4D, Reflections, Imagine	88%	June 95	17 Bit Software	01824 366 982
Insight Dinosaurs	Audio-visual interactive dinosaur book	90%	June 95	Optonica	01455 558 282
Compendium Deluxe vol 2	Demos, games and utilities collection	78%	June 95	PD Soft	01702 466 933
Meeting Pearls 1 and 2	Various PD and plenty of fractal images	78%	June 95	PD Soft	01162 340 603
Key Photos for Windows	Collection of obscurely named TIFF images	65%	July 95	Softkey International	0181 789 2000
'Animal Kingdom	Obscurely named TIFF, BMP and PICT animal pics	75%	June 95	Softkey International	0181 789 2000
Super Bundle	10-disc set of TIFF and WAV images and sounds	95%	June 95	Softkey International	0181 789 2000
World of Clipart	40,000 clipart files in various file formats	80%	August 95	Epic Marketing	01793 490 988
Aminet 6	Archived PD software and data from the Aminet	95%	July 95	GTI	0049 6171 85837
Magical Illusions	Random dot 3D stereograms and creation utilities	60%	August 95	GTI	0049 6171 85837
Almathera Ten Pack	10 CDs - Comms, CDPD, CDPD 2, Demo CD, World Vista, Illustrated Works of Shakespeare, Pandora's CD, Team Yankee, Photo Library, clipart and Fonts	75%	August 95	Almathera	0181 687 0040
Essential Utilities	Lazily compiled PC and Amiga utility collection	26%	September 95	Epic Marketing	01793 490 988
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- Photogenics v1.2SE Pixel Editing
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ScreenScene



If I seemed a little bit negative last month, I'm sorry. It's just that when you have three games to review in an entire issue things look pretty bleak.

However, as promised, the ECTS (European Computer Trade Show) came along and blew some of our blues away. The mood there was actually one of desperation though as far other platforms were concerned. With the fall from grace of both the SNES and the Megadrive and overcrowding in the PC market, the whole show was geared towards the saviours - Messrs Playstation and Saturn. And from what I saw it's going to take a lot of sales to recoup the development costs of in the games market right now are some cash generating volume sellers.

Which brings me to my point. If publishers hadn't been so quick to drop the Amiga they mightn't be so down on their luck now. For years the Amiga was the bread and butter of the industry, fuelling development for other platforms and paying for the big, extravagant parties they were fond of at ECTS.

'But Amiga games don't sell well any more', is the stock answer to this type of argument. Rubbish. A good Amiga game still sells ... only bad ones fail. And fail miserably. But software publishers prefer to hide behind 'market trends' instead of admitting to sloppy development strategies.

Alan Dykes, Editor



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Super Streetfighter II Turbo

■ Due for Release: November

■ Publisher: Gametek © 01753 553 445

If you're a *Super Streetfighter* fan you'll know the difference," was Gametek's Marcus Beer's confident response to the question of why they were bringing out a new *SSFII* game so soon after US Gold's. Admittedly the PC version of *SSFII Turbo*

knocked the socks off *SSFII*. But will the same hold true for the Amiga? So far it all sounds very promising.

The first and obvious difference between this and US Gold's version is speed. The turbo speed setting



▲ Russian wrestler Zangief and US boxer Balrog make fierce gestures at each other somewhere in China, last week. A fight is on the way. Legendary roles fade, OK.



▲ The graphics are looking very good in the Amiga version of *SSFII Turbo*. Well, so far anyway.



▲ Frying tonight. Carrying out your fighter's special move twice in succession will send you into a slow motion frenzy of violence.

on the PC version of *SSF II Turbo* is incredibly fast and Gametek are hoping to achieve the same results with the Amiga.

Welcome additions include a new boss, Akuma, and the ability to perform super combos ... quickly carrying out your fighter's special move twice in succession when your power bar is full will send into super combo mode where you can pulverise your opponent. It won't be keyboard operated but Gametek say that they will be utilising the full capabilities of the CD32 joystick. Due to be released for the A1200 and CD32 only, it should be available for review next month. ■

Lisa Collins

Total Football

■ Due for Release: October ■ Publisher: Domark © 0181 780 2222

This is more like it", I thought, when I saw the latest version of this new footy game. For a start the sprites on the pitch looked like real football players, not just undistinguishable blobs of colour. You could tell whether they were heading the ball, kicking it or just standing about. Domark have spent some time getting the players to

look as realistic as possible and proudly claim that "over 2500 frames of animation have been used to make the sprites look and move as realistically as possible."

Unfortunately we only took one picture of the game with the sprites in it, and blast Mat Broughton if he hasn't used it on his news page. If you want to see it turn to page 24. So I'm stuck with these menu pics. Thrilling don't you think?

One of the interesting new features of this isometric-viewed game is that you are able to control post-goal celebrations as well as pre-goal tactics. Shenanigans include back flips, cart wheels, diving to the ground (Juuuergen Klinsman!), strutting to the corner with your hands aloft and a lap of honour. Using a circular menu system you can control exactly what type of celebration and how long or short it is.



▲ Here we have a complete breakdown on our man's strengths and weaknesses. Name techniques 28, stamina 13, sounds interesting.

Sunderland 2 Huddersfield 0											
Sunderland Player Stats											
Player	Goals	Assists	Shots	Passes	Interceptions	Tackles	Fouls	Yellow Cards	Red Cards	Minutes	Rating
Striker	1	1	10	15	5	10	5	0	0	90	7.5
Midfielder	0	2	15	25	10	15	10	1	0	90	7.0
Defender	0	0	5	10	15	20	10	2	0	90	6.5
Goalkeeper	0	0	0	0	0	0	0	0	0	90	6.0

▲ Here's Sunderland's team statistics. Nice and moody graphics.

What will they think of next? Soon games like this will no doubt have de-toxication clinics for alkali centre forwards and pitch invasions where player one controls the crowd and player two controls the cops. ■

Lisa Collins

Team

■ Due for Release: December

■ Publisher: Impact Software ☎ 0181 988 8888

As the footy season kicks off, football games are predictably churned out by various software houses again. This is good news for football fans, but bad news for games reviewers as, let's face it, most football games tend to be — er, very similar if not identical.

However, the one to beat is still *Sensible Soccer*, and only time will tell whether it can be bettered.

Team will have all the standard football game options: cup and league competitions, team editing facilities, action replay and kit make-up options.



▲ Here you can fiddle about with some tactics to find which one will suit you best.

Impact are also promising screen updates of 60 frames per second and 'superbly' animated sprites. Having played through an early version, the game does update very quickly but I beg to differ with the 'superbly' animated sprites claim. Said sprites are extremely small so it's incredibly

difficult to see if they are actually performing all that is promised. Check out the screenshots for an example of the minuscule size of the sprites.

Features are supposed to include sliding tackles and headers, though.

However, the version we saw was in its embryonic stages so things could still look brighter (or more animated at least). ■

Lisa Collins



▲ The 'superbly animated' sprites in action. Pass me the magnifying glass please?

Choices, choices

Team will allow you to choose a lot of things. Including playing football.

Friendly match: test out your skills by engaging in a bit of hot footy action with another team.

League Competition:

In the league competitions you can decide how many teams will be in it, how many points are awarded for a win and so on.

Cup competition: Up 32 teams will be able to compete in the cup competitions. You should be able to decide how many legs will be played, which rounds will be decided by replays, extra time, and penalty shoot outs.

Game options: standard options, either one or two player.

Action replays: This feature should allow you the play, fast forward, slow play and frame advance.

Edit teams: This option will allow you to select your team from a squad of 22 players. You can change names, hair, skin colour, shirt numbers, sex (scrub the last one).



ASCON

The dream starts here...

Fears

■ Price: £29.99 ■ Publisher: Manyk 01302 890000

Fears is not a good name for game. But will gameplay triumph over wordplay? Let's visit the world of Doom.

C U Amiga Magazine was the first magazine I ever wrote for, so I've still got a mile-wide soft spot for Commodore's best. That was back in 1987 (the mag was then called Commodore User) and the Amiga had just appeared. Shortly afterwards it had conquered the world as the best all-round computer on the planet. In the meantime the PC made do with paltry four-colour CGA war games where one block encountered another and whoever had the highest number came out best.

Doom patrol

But then *Doom* changed the face of PC and, indeed, computer gaming forever. Nothing that came before could compare to it and, for the first time in its life, the Amiga flourished. Now I'm not biased against any machine (unless it's an Amstrad) but even I thought the Amiga was ready to kick the bucket and take its place, lyre and all, in computer heaven. That was until *Gloom* and *Alien Breed 3D*. Sure, these were nowhere near as technically accomplished as *Doom*, but for the technology, the price of the hardware and the demands made on the machine



by these games' programmers, both of these titles were in a

league of their own.

Then along comes something like *Fears*. It's a typical example of a bunch of people trying to jump on a bandwagon that is clearly moving too fast for them. They've seen the Amiga producing worthy 'clones' of *Doom*, but it seems like explaining the concept of *Doom* games to them is like explaining quantum chromodynamics to a haddock.

You see, they've completely missed the plot. *Alien Breed 3D* and *Gloom* both trade on atmosphere. It's that 'what's around the next corner' feeling that makes them so amazingly playable. You don't know what's going to pop up next. You're under-armed, you're alone and if your pants aren't up to the job it's time to put your jeans in for a service wash.

Fears, on the other hand,

looks like the programmers had come up with what they thought was a decent 3D engine and never looked any further.

They've ripped-off *Doom*'s graphics and they've tried to rip-off the playability. If it had been done well, they'd have been laughing. But they haven't. With *Fears* Manyk has created a game which doesn't get the player involved to any extent. All the way



▲ The enemy: combined with floating sex anaemias and baby soldiers he'll make your life miserable.



▲ And so he met his death in a massively frustrating pit of lava after shooting a lump of strawberry jelly.

through I was simply concentrating on finding the exit. It wasn't a matter of survival and it didn't even reach the level of puzzle solving. I simply wandered round, wasted a few blobby creatures and either died, or went to the next stage.

Death, eh?

Fundamentally that's what this type of game is about. But there wasn't a single time I felt genuinely sorry I had died. When you're ambushed by half-a-dozen critters in *AB3D*, you can feel annoyed. It simply makes you want to go back and waste them. Here, though, you just feel 'What the heck, I'll have another crack because the next level might be better'. Unfortunately the subsequent stages offer precious little else and all the time you're fully aware that you're pounding away on an Amiga keyboard and not

Speed Traps

With a game like this, the performance capabilities of your Amiga can make a big difference as to how much you actually enjoy it.

A1200: *Fears* is a tough game to play on a standard A1200. The frame rate's low, even on the smallest screen size, and it loses even more of the atmosphere. It really isn't worth bothering with if this is how you're going to have play it.

ACCELERATED A1200: Fast, smooth and you'd could be forgiven for thinking it's *Doom*. Playing it tells a different story. The speed and visuals give way to the comical playability and you'll soon regret loading it.

A4000: If you don't have a 50MHz accelerator, this is the only other machine worth playing *Fears* on. Actually, it's not worth playing *Fears* on any machine when you could buy *Alien Breed 3D* or *Gloom* instead.



TOP GUN

So which *Doom* clone is the one for you? Four contenders have a stake and, well, technically, they're all decent enough. I've played three of them:



ALIEN BREED 3D: My personal favourite. Yes, I'm a sad Aliens devotee, but this is also a brilliant game with relentless pace, constant threats, enemies you can actually be afraid of and a good two-player combat mode.



GLOOM: Slightly more traditional when it comes to *Doom*-a-likes. Which, for me at least, is the only reason to buy it ahead of *Alien Breed*. I don't think it's as cerebrally involving, but there's lots to shoot.



FEARS Bottom of the pile and not by accident. I can't think of any reason why you should go for this game ahead of the other two. The other contender is *Citadel*, but I haven't played it yet.

actually engaged in a seat-of-your-pants fight for survival.

It isn't helped by the fact that you're attacked by pink octopuses and green dwarfs which look like escapees from the *Roswell* incident. It's more laughable than suspenseful. I'm all for progression, but I'd rather be running away from someone in tight trousers and a chainsaw than facing girly coloured sub-aquatic molluscs.

On top of all this is the grade-A cruddy head-to-head mode. When you encounter the other player, you get no indication that he's firing at you, presumably because they couldn't be bothered with the extra graphics. He just stands there, arms by his side, and the only time you realise you're being shot is when your energy starts going down. Neither is there any indication that you're hitting him. When I was playing against Alan I had to shout out are you losing any energy?

Genuinely though the game had crashed and we weren't hitting each other. If that doesn't suck like a kid with a McDonald's milkshake, then I don't know what does.

Constructo-gameplay

The only real redeeming factor in *Fears* is the level designer. Hopefully, you should be able to create better levels, but why bother? The point about buying a game is to be entertained, not having to toil constructing your

own far more interesting levels.

After writing this semi-diatribic, I can't help but feel that I sound a bit too harsh towards *Fears*. But then, after playing *Breed 3D* I don't see the point in this game. It's technically well put together, but the gameplay's all wrong. Because of that I can't recommend it, although it's also impossible to really mark it badly because it's not a truly bad product. Put it right at the bottom of your *Doom* clone list though. ■

Mark Patterson



▲ Gosh! It's John the Rat's younger brother and he's about to kill you.

FEARS £29.99

- workbench version.....1.3+
- number of disks.....2
- RAM.....1Mb
- hard disk installable.....yes

graphics.....	82%
sound.....	76%
testability.....	74%
playability.....	72%

OVERALL
It should have been so much better than this. **74%**



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ASCON



Citadel



■ Price: £29.99 ■ Publisher: Black Legend ☎ 01438 840003

The fourth and final instalment in the current batch of Doom clones arrives. Would Citadel please stand forward and make itself known?

It's funny the sort of thought processes that happen while evaluating a game. Often you start off with a wrong impression or expectation only to find, over the course of days, weeks even, that things are different, that your initial judgement was either right or wrong. With *Citadel* my mind changed several times and just prove I am not alone, so did the opinion of the rest of the office too.

There's absolutely no reason why I should tell you about the plot of *Citadel*, because if you don't have a handle on first-person perspective *Doom*-style games by now you're either genuinely not interested, in which case you shouldn't be reading this, or German, where the laws of the land proscribe too much violence in computer games. Suffice to say that the aim is to



create a game atmosphere with so much realism that it seriously excites the adrenal glands in a way that no top-down or side-on view shoot 'em up ever has.

When *Citadel* was originally previewed it was a bit of a mystery. Having been used to blocky graphics in both *Gloom* and *Alien Breed 3D*, *Citadel* came as a surprise. Even up close, most of its features remained solid and the enemies, from marines to the ubiquitous floating worms looked convincing enough, even though their animation was a bit dodgy. Adding to the mystery was the fact that all of the text was in Polish (the developers, Arrakis

Software and the unfortunately named VD are based in Gdansk), including the options and loading screen and the on-screen prompts.

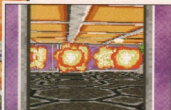
On screen prompts? Yep. This is a bit of a departure for *Doom*-esque adventures. *Citadel* finds itself sitting (somewhat uncomfortably I found) on the fence between an old style graphic or text adventure and the new breed of shoot 'em up with which it so readily identifies. Not only does a little Reuters-style scrolling text bar at the bottom of the screen let you know what you've picked up when you run over an object, if you press fire without a weapon in his hand your character will 'examine' an object, area or wall. Sometimes this yields something

valuable, like a hidden room or teleporter, sometimes it just scrolls 'I see nothing' or 'Nothing except stinking air' messages. These are all right to begin with, but soon begin to grate, especially if what you are after is action, not talk.

All action

But action there is aplenty. *Citadel* is a difficult game, even on easy mode. It's sometimes difficult to find a weapons upgrade and there are times when an unreasonable amount of aliens will attack you, giving you little hope of survival. This becomes annoying because although there are plenty of medikits around for you to pick up, you've got to reach them fast because there are no extra lives. At the end of each level you can save the game, but if you die horribly during a level you have to go right back to the main menu and start again.

To actually win the game you have to collect parts of a bomb and destroy the Citadel. The game is divided up into six areas and each one of these contains several levels and one piece of the bomb. After you have completed level one, the entry level, you don't automatically have to go



▲ Multiple explosion city! The range of weapons is good but some are not as powerful as this.

▲ This is a map of the Citadel. Part of a bomb is hidden in each room which you must collect.

onto another set level, you can choose one of two which are accessible. In this way you can get more experience of the maze.

I've said it's difficult and it is, so thankfully Arrakis have included practice levels for each part of the Citadel. To have a help getting through the game you really need to play these practice levels first. Indeed, in many ways, true *Doom* seekers will enjoy the practice modes better than the real game because they are absolutely filled with handy weapons and dastardly enemies.

Runs on A500s

The really big news about *Citadel* though is the fact that theoretically it will run on an A500. You need 1Mb of RAM but yes, we've tried it on one and lo and behold it loads, it moves, it plays. That's something which AB3D, *Gloom* or *Fears* don't have! Though Mark Sibly is promising an ECS version of *Gloom*.

I say theoretically because although strictly speaking it does, ie it loads up and you can start playing it, it's pretty cheap. In



▲ Aggressive fat men and a pink alien. Yesterday.

fact it's like wading through a vat full of hot Gorgonzola with no peg on your nose. If you've ever seen the part in the A-Team where everyone goes into slow motion while there's a battle going on you'll have a rough idea of what *Citadel* is like on a basic Amiga, even if there isn't a battle in progress. Luckily you can scale the screen down to one fifth of its normal size and reduce the detail. This actually results in a faster game on an A500+ than on an A4000 040 in full screen mode. Unfortunately in this stage the playing screen is the size of a



▲ Citadel is gorey and no mistake. No 'Heavy' option here, just blood, liberally splashed about.

postage stamp, but boy does it fly. A pair of binoculars would be handy.

The news isn't that much better on an A1200, believe it or not. It's still slow compared to either AB3D or *Gloom*. Only when you get into speed realms of about 50MHz (in either 030 or 040 form, take your pick) does *Citadel* really shine. It's speed is really top class with a decent machine behind it.

Tough decision

There are many things I don't like about *Citadel* though. The text bar at the bottom of the playing screen does get annoying from time to time for instance. When you bang into the wall it starts spewing out statements like 'ouch!' and 'watch where you're going' which are, quite frankly, very unamusing. The other thing about crashing into walls is that Arrakis have chosen to completely ruin their lovely close up graphics by deliberately corrupting them if you hit a wall. There is no need for this. A game like *Citadel* is supposed to convey at least some sense of realism, but the last time my senses went all fuzzy simply by banging into a wall (and I don't make a habit of this sort of thing readers) was when I braked too hard on my bike and went flying over the handle bars, age 12.

Another thing I didn't like was lack of power in some of the weapons. A double barrelled shotgun looks impressive, but isn't. Also, although effective, the flame gun simply lights up your enemy but doesn't 'down' them. It eventually will but in the meantime you can't walk past them and if they touch you you'll lose power points. On the up side though Arrakis have built in a brilliant mouse/joystick/keyboard control system that warmed my fingers with delight. With any game of this ilk, aiming your gun using the

direction keys is a bit difficult, but using the mouse, precise shooting could be initiated.

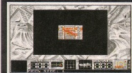
As I said at the beginning, opinions on *Citadel* shifted like sand. One moment it was slow and rubbish, next it was 'take look at this, it's much better on an accelerated machine'. So it's a difficult one to score. On an standard A1200 it's worth about 78% and as a *Doom* clone it's worth about 70%. But then again, Arrakis never really intended it to be a direct *Doom* clone, it has too much of an adventure angle to it for that. If you look at it as a shoot 'em up/adventure hybrid and whack it onto a machine with oodles of fast RAM or a decent accelerator, it's worth about 85%. Finally I'm really going to stick my neck out here, but there is just no alternative to *Citadel* for A500 owners at the moment, despite the minuscule screen size you have to play it on. So get it. ■

Alan Dykes



Size matters ...

Citadel is designed to run on any Amiga with 1Mb of RAM. However, try running it at the standard screen size on an A500 and it's laughable. To help out there are a total of 8 different screen sizes and you can reduce the graphic detail and get rid of floors and ceiling. All of which will make it run like lightning on any machine - but at a cost.



▲ An entry for the Royal Road's new 'Down' command. This is the screen setting menu. Pass the binoculars.



▲ This is screen size number three. More manageable than the postage stamp it gets the speed just about right on a basic A1200 but chugs on an A500.



▲ The default screen size. If you're happy to move forward occasionally on an A500 or chug along on an A1200 then this is the mode for you.



▲ For Clint Eastwood fans. Here's the wide-screen mode of setting six. This is big-accellerator-to-A1200 territory without a doubt.



▲ Glorious full screen mode, but slower than a 3F train with steam brakes on the track in front of it. This is 50MHz, 030 and 040 territory.



▲ You can also turn off the floor and ceiling and reduce detail to a minimum. This doesn't affect the quality of the surrounding graphics, just the screen.

CITADEL

A500	workbench version.....	1.3+
A500+	number of disks.....	5
A500+	RAM.....	1Mb
A500	hard disk installable.....	no
A600	graphics.....	87%
A1200	sound.....	80%
A1500	lastability.....	84%
A1500	playability.....	80%
A2300	OVERALL	
A3000	78% without an	
A4000	accelerator,	
	I'm afraid.	85%

Pinball Mania

■ Price: £29.99 ■ Publisher: 21st Century © 01235 851852



What's this? A new game from 21st Century? My, whatever can it be? Lawks a mussy, what a surprise, it's a new pinball bash and it's free with the new Amiga 1200, hurrah!

Pinball eh? At the end of the day, it's just a load of old balls isn't? And bumpers. And lights and flippers and ramps and noises and bonuses and pure, unadulterated, adrenaline-pumping, fun-filled chaos. Isn't it? Well that's what it's supposed to be, at any rate. Unfortunately, the best laid plans often don't come to fruition.

21st Century are old hands at the pinball game game, having churned out tons of them in the past. In fact you can almost imagine what it's like at one of 21st Century's software development meetings:

"So what sort of game shall we start working on next then guys? Any suggestions?"

"Hey boss, I've got a great idea, how's about creating a pin-ball game?"

"Wow, that is great idea, let's get cracking and do it".

We may mock, but on the other hand computer pinball, if done properly, is great and 21st Century has certainly proved itself adept at the art, producing several extremely enjoyable ones in the past few years. *Pinball Illusions*, released at the beginning of this year, is a



▲ The best table in the game, but it's not really worth the money if the other 75% aren't up to scratch. Could it be that new development team Spidersoft just aren't as experienced in the genre as Digital Illusions?

prime example of this, being a game which is adored by all and sundry here at CU Amiga Mag.

But enough of the history lesson, "what about the game in hand", I hear you scream? "Surely they can't continue to flog the same old dead horse without the

whip breaking?" Okay, okay, I'm getting there. First up, a run down of what 21st Century have got on offer for us this time.

Tables Galore

The first table is dubbed Tarantula and, funnily enough, has a subtle



▲ FootballPinball. We know which one we all prefer. (Spoken for yourself - ed.)

but undeniably distinct arachnid theme to it (there's a humungous great spider from hell plonked right in the middle of the table, for starters). The web related activities of this domain include, just to offer a few examples, a Multibonus where you have to light up the WEB letters to notch up a welcome 20,000 points. Follow this up with a ball shot through the flashing WEB letters and you pick up a huge X2 bonus and one million luerley points. Drop down the Scare rail or the Poison slot to pick up assorted points galore and if you finally manage to spell out TARANTULA (no mean feat because these babies are hard to reach) you notch up an earth-shattering 50,000,000 points.

And so it goes on with more and more targets to aim for to open up further point-scoring opportunities to push that total of yours into the multi-million bracket. The main attraction to head for, of course, is the the multi-ball mode achieved by

shooting the ball out of the FANG platform through the FANG escape (a task which is as hard as a very hard thing indeed). Not only is this an irritatingly difficult aim to achieve, but you only get a two-ball multi-ball which is a real let down. Surely the normal three-ball multi-ball wouldn't have completely broken the memory banks?

If you're a bit of an arachnaphobe, you can always go for a bit of correctional therapy in Jailbreak. Here a stern looking judge sits in judgment on your activities, while your balling antics can achieve the release or jailing of a suspect, start a riot or sentence a person to something particularly unpleasant. This table has got the unusual feature of a pair of flippers right in the middle which let's you aim for all those elusive bonus (not necessarily with any success, I might add).

For the footie fans there's a soccer themed table with football-associated bonuses such as fouls, goals, kick-offs, penalty shoot-outs and trophy targets to aim the ball for.

My personal favourite was the Jackpot table which is more inventively designed and features coolish bonuses like the HiLo,

Roulette and Craps shots to go for, which were at least vaguely interactive if a little short-lived (after winning at HiLo I would have preferred to carry on until I lost, for example).

The Bottom Line

I've deliberately left any personal opinions of the game until fairly near the end because, quite frankly, they are not particularly favourable. It's not that Pinball Mania is a particularly bad game or anything, but then neither is it particularly good – it falls slap bang into the realm of average. From a company that has so much experience in this genre, I really would have expected much

better than what they've gone and put on offer here.

My main quibble is with the bottom flippers; talk about limp; most of the time they have about much life in them as a fart in a bottle, pathetically nudging the ball barely centimetres up the screen. Consequently it's very difficult to get near the top end of the table where all the action is! To make matters worse, in my view, they are completely erratic – I believe in testing games thoroughly so I spent

hours teeing the ball off from the exact same spot at the same angle on the flippers and the response was widely different nearly every time I tried it. Most times, as already mentioned, it was hardly worth the effort, but occasionally it would just shoot off at high speed for no particular reason that I could make out.

Some tables were better than others (I actually quite enjoyed the Jackpot table) but all were afflicted with the same maladies, as in lack of features and a rather flat, unrealistic feel to the gameplay. The music accompanying the whole experience is good but, unfortunately, the expected sound effects on bumpers and flippers are sadly absent. As I've said, Pinball Mania isn't bad and the disk-swapping ratio was perfectly acceptable, but I did come away feeling it was a bit of a let down, especially from a company with so much experience in this field. ■

Lucy Hickman



▲ It's hardly the scariest spider in the world. Looks more like a rubber one if you ask me.

▲ Looks like there's a bloody great Tardis in the middle of the table. We think it's time that 21st Century looked further afield and started licensing the excellent tables we keep finding in pubs.



PINBALL MANIA

- workbench version.....3.0+
- number of disks.....2
- RAM.....2Mb
- hard disk installable.....no

graphics.....	75%
sound.....	72%
stability.....	74%
playability.....	72%

OVERALL

An average pinball sim that lacks features.

75%

Hollywood Hustler

■ Price: £24.95 ■ Publisher: Desert Star Software © 01482 871210



▲ Reader, meet Jackie (the one on the left, doll). Jackie is a Virgin and is looking for that special guy. If you break into the high stake stakes and win at Hustler level you and her get to have an intimate experience.

Tack is back. Loose women, strong liquor and a game of cards star in this cinematic er ... experience.

It's been a long and weary day, you've lost your job, your car has been repossessed and your girlfriend Barbie has just run off with her analyst. What's a boy to do? (A) Admit to being an irresponsible, commitment-shy lout (B) Sod responsibility, get pissed and blow your last pay check on a poker gambling spree. Yessum you guessed it. Seedy dark poker room here we come.

Hollywood Hustler. If you haven't already guessed, is a poker simulation game. Straight, no frills, five card poker game that takes place in a seedy location somewhere in Sunset

Boulevard (California). If you haven't played poker before, the accompanying manual explains it all for you. Control is simple enough, all you have to select are the bet/raise, check or drop options and when you ask for new cards, choose the card you want to throw by selecting it and holding the joystick down.

Three endings

The aim of the game, obviously, is to win as much money as possible by pitting your wits against three dubious opponents (not!) add to the overall ambience by uttering choice phrases such as 'who cut the cheese?' in drawing American accents and make loud farting noises. And just to make it even tackier, a glossy waitress appears every now and then to fill up your glasses. For some it might be enough just to enjoy the thrill of winning,



▲ After each game, the score table lets you know how much you're winning or losing. In the black you're in debt. In white you're in credit. I'm not doing too bad here.

game of poker but Desert Star thought it would be a good idea to add an extra 'carrot' to the game. You see, as well as taking part in a game of poker you also get involved a storyline which has three different outcomes depending on how much you win or lose.

When you sign in at the club, a TV is on in the background and a woman called Jackie (who's a Virgin, by the way) is describing her ideal date. If you lose money in the game you're sent head first down the steps of the club, but if you leave the table with a substantial sum you'll find yourself outside the club with the sound of high heels clicking towards you. If you make it to the high scorers table; however, you've hit the big time. You and Jackie get together and head off to the Hollywood hills for a night of passion which sees you leaping up and down shouting "suffer baby suffer". Himmmm.

Suffer baby

If this storyline wasn't tacky enough, the chunky digitised graphics make it even tackier. But that's obviously the aim. Apart from the gratuitous boobs on display, I enjoyed the game (as much as one does enjoy poker) and found it quite easy to win a fair amount. At the easiest level the Gods seem to smile on you and

you are frequently dealt a very good hand. Things get trickier on the other two levels but not too much. To make it to the Hustler high score table it's probably best to choose unlimited hands rather than the 15, or 25 hands options. This

way you can get as much money as possible. Thankfully, there is a save game option so you don't have to play whole the game in one sitting.

I liked playing *Hustler* because I like a good game of poker. The characters farting and rambling didn't annoy me too much. There are cheaper PD poker games around but these don't have the added extra of digitised opponents to play with which seems to make it a bit more interesting than playing against the computer. However, the overinflated price tag of £24.95 is totally unjustified for what it is: a dressed up simulated poker game with dodgy graphics, tacky blues sounds and questionable ethics (ie topless women). ■

Lisa Collins



▲ A pair of aces and I'm feeling brave. Let's raise the stakes a little. Pushing the joystick up on the bet/raise box will higher the stakes.

HOLLYWOOD HUSTLER

AS50	workbench version.....	1.3
AS50	number of disks	3
AS50	RAM	1Mb
AS50	hard disk installable	No

AS50	graphics	40%
A7200	sound	40%
A1500	stability	60%
A1500	playability	80%

OVERALL

An overpriced poker game - what a hustle!

39%

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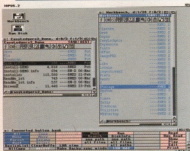
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Wheelspin

■ Price: £29.99 ■ Publisher: Black Legend © 01438 840004

A good racing game warms the heart. But how much heat this new offering from Black Legend offers remains to be seen.

Rather coincidentally, pretty much the last thing I wrote for The One (apart from the obituary!) was a Work In Progress for this little fella — and jolly nice it looked too. Of course, the main problem was that we never actually saw the thing running, and as is always the way with racing games, success is down to the handling and playability. Well, if first impressions are anything to go by, this product could be in trouble.

As the game loads, the initial presentation screens are very nice indeed, accompanied by some excellent music, even as you select your car and driver, the graphics look very good. However (and here it comes) the moment you get to the track, even though things are still looking pretty, the lights go green, the cars start to move ... and it all goes horribly



▲ Wouldn't it be much more fun flying that helicopter and raining burning-hot mini-gas death on the occupants of the cars?

wrong. I will explain why in a moment, but first I feel it only fair to give you a bit of info.

Fine details

Wheelspin certainly can't be criticised for options; with ten tracks on offer and eight characters to choose from. The drivers have been gathered from around the world; each one carrying a differing set of statistics and attributes. You might want to go for the sharp reflexes of the American, but then again you might fancy the excellent top speed of the Frenchman. The choice (as they say) is yours. The cars available also vary, with traditional racing game buggies along with off-road vehicles and sports cars. There's a World Car in there too (a sort of VW Beetle affair) but you won't be able to access that until you've completed the 'leagues' involving the first three cars mentioned.

The tracks themselves also vary dramatically, with icy conditions, forests, canyons, and all your regular favourites included. And, as if that wasn't enough, there are a variety of different game types to choose from, allowing the cars to be influenced by,



among other things, lunar gravity for extra hilarious japes. There are also settings to make the cars jump when hit, or voluntarily bounce when nitros are fired, allowing

overhead overtaking manoeuvres. machine off. So what exactly is the problem? Well, imagine that you had a tiny car — albeit a very pretty hi-res one — and then you stuck a pin through the very centre of the roof and into the floor underneath. Now turn left, but rather than turning with any sort of realism, it just spins around on the pin. Hmm, feels pretty good doesn't it. Well ... no

Not in that colour

Another regular feature we've come to expect from racing games such as this, is the opportunity to earn dosh and upgrade your car as you work your way through the tournaments. Before each race a simple screen appears allowing you to change between engine, tyre, and suspension types (if you've got the budget obviously! Here you can also invest in additional nitro charges, which can then be accessed during the game by pushing forwards. And that sentence brings me (although you can tell I've been avoiding it) to talk about the actual gameplay. Oh dear.

Poor Performance

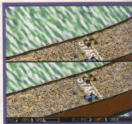
Yes, everything's going great, and then you get your first chance to test out the handling of the car, and it's ... time to turn the



▲ Get a taxi! Race in the desert! Fall off a bridge! Die horribly in the canyon!



▲ Well, it's handy Silverstone. And the cars there handle better too.



▲ The split-screen mode is OK, but it's sometimes hard to judge the track and doesn't beat *Slideways*.



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Top 100 Games

CD32

■ Price: £14.99 ■ Publisher: US Dreams ©01483 728397

What with there being a bit of drought as far as new releases go, Matt Broughton sits down and spends an evening in CD PD hell.

I don't know why, but Lisa appears to have altered my 'CU Duties' list to include not only Games News, Snip Tips, and Game Reviews but now also an activity known simply as 'sifting through rubbish'. I mean, when you receive a disk calling itself 'Top 100 Games CD32' you have to scratch your head and wonder, because as far as I was aware there haven't even been twenty good games in the CD32, let alone 100!

Anyway, I sat myself down armed only with a trusty old CD32 and an extremely open mind — then I saw the menu screen and realised I'd been tricked into reviewing a compilation of old PD games. DOH!

Now although I used to complain about doing PD Zone for The One, I actually quite looked forward to sorting through the hundreds of disks that used to arrive, simply because there was always the odd corker hidden away in amongst all the plop. Come with me now, as I reenact last night's events for you...

OK, let's be methodical, and go through these in alphabetical order, with the first competitor



▲ The original Elevator Action is over a decade old, and still looks better than this version.

being AGA Tetris. And... it doesn't work. Excellent. Next up is *Air Strike 2*, which turns out to be a really rubbish Shoot 'Em Up Construction Kit game. Hmm. *Alien Fight* is a wet *Galaxians* clone while *Amiga Boulderdash* calls up a Workbench screen which, because all I've got here is a CD32 joystick, I can't access at all. OK, sod being methodical, let's just skip through and look for something vaguely promising.

Naivety's a curse. These PD games have obviously been ported to CD32 without any regard for whether they'll work with a joystick or not. *Return to Earth*, *Spider*, and even a German version of *Risk* all required a mouse, which I didn't have. Oh dear.

Promising titles such as

Batman and Star Trek turned out to be SEUCK efforts, as did



▲ As digitized bit of Boris Vallejo artwork. Now completely original.



▲ Why spend an evening with money playing your customised rules version of real Monopoly when you can waste your life playing this shoddy CD version?

Megasquad, You're Dead, and Mutants From Mars (plus more!). Oh, and The Real Popeye crashed immediately.

The frightening thing about pretty much all of these games is that they date back to 1988, so most of them need a mouse, and most of them are either written in AMOS or the aforementioned dreaded SEUCK. There are numerous *Q-Bert*, *Defender*, *Frogger*, *Galaga*, *Galaxians*, and *Space Invaders* clones, all of which would have been binned in my day.

As far as whether I found anything worth playing, well there were six. *Deluxe Galaga* is excellent (although the version supplied here isn't even the most recent available); *Galaga '92* is similarly interesting; *Microbes* is an excellent blast; *TANX* is a classic; *Robodux* is a brilliant *Boulderdash* clone and *Transplant* is one of the finest PD shoot 'em ups you'll find. Of course the only problem here is that, what with CU Amiga and The One always having taken the



▲ Pushing the back the boundaries of 32-bit technology and CD-ROM is Frogger. Oh come on, you cannot be serious.

trouble to find the best PD around, you've probably already got these from cover disks.

It just seems as though someone with a CD pressing facility has decided to take 100 PD games at random — be they good or bad — and then put them on a disk regardless of whether they even work or not. Even the menu system is fairly unfriendly, giving you no option but to page through every game name alphabetically, and at a snail's pace.

The fact that I must represent the average CD32 owner (having nothing more than a basic machine and one joystick), and half of the games were unavailable to me thanks to the clever need for a mouse proves this is just one of the worst bits of CD software I've ever seen. ■

Matt Broughton



▲ Yes, with a CD32 and mouse you can access over a thousand software along the lines of Bomb Pac. Pardon me while I cry.



OVERALL
Six good games
out of 100.
That's ...

06%



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Knightmare

My party is on the Quest for the Crown. We have just got off the train and in front of us is a pool of water. Every time we try to cross it we drown. My grandson has tried but he has had no success. Please can you help?

Computer Granny, Basingstoke.

I bet you don't move as quickly as you did when you were young, and I bet you can't still get into your wedding dress either. And why? Because you've put on weight! If only you could shed a few pounds, I bet you could run like fun. Drop everything that's not essential and you'll find things won't be such a problem.

Operation Stealth

At the Santa Paragua Airport I can find the coin in the newspaper dispenser and I can get into the toilet but if I try to get past the Customs Official he asks for my passport, which I don't have and don't know where to find. In the manual it says that there is an NTY Forger in the briefcase for making passports, but it doesn't say how to open the case.

Daniel Shapiro, Southend.

Adventure Helpline

There is a beautiful girl in this game who will be relying on you and you can't even open the briefcase! Boy are you going to have trouble with this game. Here is the walkthrough for the first part. Go to newspaper machine, examine coin slot, take coin, use coin in slot, examine newspaper, go west, OPERATE BRIEF-CASE, examine passport, take notes, operate calculator, use passport on slot, set machine for Germany, operate Enter Button, go east, use German passport on guard, speak to girl, go west, use airline ticket on guard, examine baggage, take baggage (labelled Martinez), go east (into toilet), operate baggage, take all, use electric cable in plug socket, operate razor, go west, go south (outside airport), stand near the sign and wait for taxi. Get in.

Curse of Enchantia

How on earth do I get the magnet down from the ledge in the room with the big rock in it? I have attached the plank to the rock and I am carrying a paperclip, a ball of string, some seaweed attached to some twigs and what looks like a computer.

Isabelle, Fakenham

Return to the room where you picked up the dodgy-looking computer. Look in the hole in the wall and you will find a reel of wire. Go back to the cave with the plank and stand behind it. It's now that you should realise that the computer you are carrying is an Atari ST and is therefore completely worthless, so throw it. The heavy piece of rubbish will land on the other side of the plank and catapult you into the air.

Bard's Tale III

I'm at the end of the 6th world, Tenebrosia, where I need to confront Scedu and get a couple of items off him. My problem is that I can't find him and I have mapped out the whole level. I

have been in touch with everyone I can think of, but no one can help.

M. Elgie, Wimbledon.

So why didn't you come and ask me earlier? I don't bite you know. Oh dear, what am I saying ... You must go to the Middle of Nowhere (go 4S, 3W from the city of Black Scar). Use the Shadow Door and Shadow Lock then enter the hole to the dome. Scedu is to be found of level 2. You'll have to use a Rogue to sneak up and kill him. He's got the Helm of Justice and a magic cloak.

Larry 3

I have gotten into the locker room and found locker 69, but I can't open it. I have tried calling the Sierra helpline, but it simply says that I should open the locker, with no clue as to how I'm supposed to do that. The only clue to the combination is the names of three businesses written on the back of the Health Club, but I don't see how they can help with the combination of the locker.

S. Anderson, Mid-Glamorgan.

In this case the three companies you mentioned have also taken up advertising. Look in the free magazine which came with the game, and find the three page numbers which carry the adverts. I do hope you've got that magazine or you're going to get very cross at this point!

Beneath a Steel Sky.

I have broken into the subway beneath the night-club, but I keep getting eaten by a monster! What I'm supposed to do next? Help!

Thomas Pashby, London.

What do I do with the dummies in the cathedral? How do I get past

the thumbprint scanner in the club?

Graham Kidd, Ayrshire.

Just like me, the monster in the dark subway has an aversion to the light. Examine closely to the left of the entrance hole and you'll find a socket. Use the light bulb in the hole and the monster will 'leggit'. The thumbprint scanner can be fooled by getting a thumbprint from Colston. He will then get up and leave his glass once the band stops playing. You can take the glass to Burke's Bio Surgery to get your problem fixed. Inside the cathedral you should walk through the back door to the left and examine the middle locker. It's here that you'll discover Anita's dead body.

Hook

I am sending this letter on behalf of my forty-three year old dad. He can't get onto the pirate ship.

Clare Shillitto, Clevedon.

Only a pirate can get on board. So go to Dr Chops, and after having two teeth out you can pick up a roller blind at the back of the wall. Go to the Bail and Tackle. Go upstairs and use the anchor with the rope to get a hat from a pi rate below. Give three mugs of beer to a man in the Jollist Rogers and then take his pants off. Go behind Pirate Square and use the roller blind. Sorted, as they say.

If you've got a little problem that you are too embarrassed to ask a friend about, pop it in a plain envelope and send it to our Mistress of the Night and she'll take a close look at it for you.



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Hello again, and welcome to this month's selection of snips and tips, courtesy of, well ... you lot really. Don't forget, though, it's all worth while, because any tips printed earn their author a free Hit Squad game. Hurrah!

MEAN ARENAS Ice

It's an oldie, I know, but a goodie and Mr Mark Ross has a rather dandy little cheat... Just type in CHEAT on the option screen (clever!) and you access a bonus arena which has tons of groovy things to collect and no enemies. If you follow the course of the arena you'll come to a rocket ship which, when collected, activates the cheat mode, allowing you to press the following buttons for the following effects: 'Help' takes you to the next level, 'Delete' gives you a shield, 'L' gives you extra lives, 'W' awards extra weapons, 'B' gives you extra bombs, and 'E' gives extra energy.



▲ They don't have this kind of dodgy corrupt cheating in real football. Do they? Hmm...

Snip Tips

ULTIMATE SOCCER MANAGER

Daze

Thanks to Paul Scott for a handy set of cheats for this little fella'. If you tell the game that your name is MAKE BELIEVE you can then press the following buttonettes for these cheats:

- 1 to win the match 1-0
 - 2 to win the match 2-0
 - 3 to win the match 3-0
 - Escape to end the half with the score as it stands
 - G to score a goal at any point during the match
 - M to collect an extra £100,000
- Very nice too, Paul. Here, have a free Hit Squad game!

OVERKILL Mindscape

A free bit of software is on its way to Master Alistair Wells, and it's all because of this simple little cheat for this excellent A1200 blast 'em up. Just enter NZL as your initials on the high score table, and you'll receive infinite lives. And, er... that's it!

THE ADVENTURES OF ROBIN HOOD

A little known game this (and, in fact, so little known that I can't remember who produced it. Doh!) but it's an interesting and weird offering none the less. Edward Carr Jr is to thank for these codes, so hold down the Alt key at any point during play, and type:

- 371 to outlaw merry men.
- 441 to cycle through seasons.
- 654 to entice the merry men to join up.
- 828 to legalise

ghanga... er, Robin Hood (whoops!)

- 103 to make Marion fancy Robin. Err.
- 373 to put a price on Robin's head.
- 214 to move near the spring near the wizard.
- 370 to outlaw stag hunting.
- 372 to outlaw Robin Hood.
- 213 to move to the island near Little John.

CANNON FODDER CD32 Virgin

Dan Cunningham adds himself to the list of Hit Squad winners, with a couple of very tasty cheats. First up is the excellent *Cannon Fodder*, where by clicking on the LOAD icon and then pressing and holding both mouse buttons for five seconds (and then releasing) a screen will appear offering you a 'Hardman' option and level select. And next up is ...

SYNDICATE Bullfrog

Yip, a very clever cheat that allows you to build up tons of doss without doing any hard work. Just put taxes up to 100 percent and then complete the easy first level, but fail the second mission on purpose. You'll now find that, because of the high tax, the fist mission's population have rebelled and you'll have to complete it again. Of course, you can keep repeating this, and for every couple of minutes it takes to complete the easy first level, you'll be raking in the taxes. Then, when you've got tons of doss to put into research, you can plough through the missions armed with much better weapons than normally available. This lets you tool your cyborgs up early on and plough through the remaining 49 levels of mayhem!



▲ Lost? Confused? Sadder than Males on a Sunday? Then cheat your backside off. It works for us.

ALFRED CHICKEN

Mindscape

Thanks to Mr Simon Kinder for this little lad. Just type HELP-MARK on the title screen and then press 1 to 9 to select the level you want.

X-IT Psynopsis

I remember it as *Zanked*.

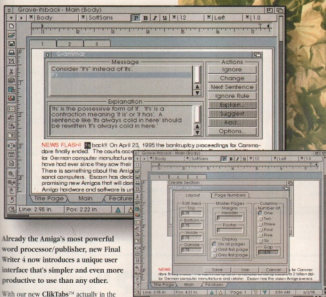
Whatever, you can't dispute it was an excellent puzzle game. Well, let's have some level codes anyway... thanks to Steve Johns.

Level 2	033028
Level 3	555925
Level 4	567597
Level 5	276614
Level 6	517375
Level 7	877535
Level 8	829508
Level 9	287682
Level 10	221620
Level 11	728441
Level 12	640537
Level 13	558170
Level 14	170088
Level 15	688631
Level 16	450418
Level 17	898476
Level 18	095909
Level 19	589611
Level 20	394659

And before you know it, we've run out of space again! Never mind, more fun next month, and more prizes on offer so keep those tips coming in. See you in 30.

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Cinema 4D

■ Price: £199.99 ■ Developer: Maxon GmbH ■ Supplier: HiSoft Systems ☎ 01525 718181



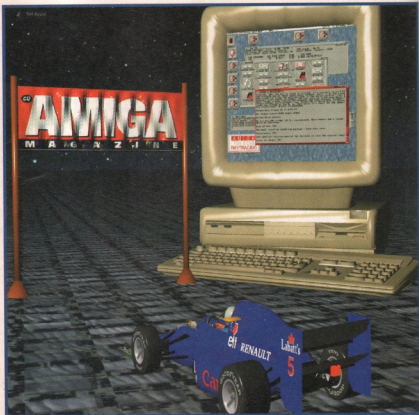
A new and easy to use 3D rendering package arrives on the Amiga. But how much power does it cost to be intuitive?

With the Amiga's roots in graphics for video and television, we've been blessed by the very best packages in this genre. From paint programs to image processors, we had the best before the other platforms had anything like it – and rendering software was central to the Amiga's superiority in this area.

Only now do other platforms have ported versions of the mighty *LightWave* and *Real 3D*, both of which were born on the Amiga. However, one problem which has always held this software back from the mass market is its difficulty of use and system requirements.

Programs like *LightWave* and *Real 3D* require staggering amounts of RAM and processor resources and, worse still, they tend to be almost too powerful. The addition of major features that professional 3D artists have demanded has taken them beyond the level of difficulty and detail that most Amiga amateurs would like.

HiSoft's *Cinema 4D*, developed by a German company, Maxon Software, attempts to redress the balance by providing a package that's easy to use and intuitive while still providing real power.



HD Install

Installing *Cinema 4D* eats up just under 8MB of hard drive space, which is fairly modest for a modern rendering package. We still discovered German text in our review copy, but the large manual was fully translated (if a little strangely in places) and HiSoft assured me that the release version of the software will have been fully converted to English.

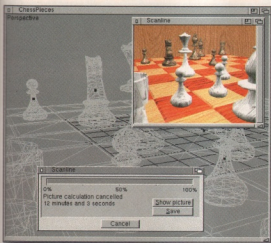
Since the package is alleged to be easy to use, I gave it the

ultimate test: the manual lay untouched while I dived in head-first, expecting nothing but grief. I was pleasantly surprised though, it didn't take long before I got to grips with the program.

When you load *Cinema 4D* the default screen appears which consists of a 3D 'perspective' window flanked on the left hand side with a large, clear button bank (or icon bar, whichever you prefer), which contains the basic tools you need to operate the

program. When you move the mouse the ground rotates around each axis in line with whatever direction you move it. There are X, Y and Z buttons on the button bank to lock and unlock these axis in a similar way to *Imagine*.

The editing view is controlled by six buttons: 'XY', 'ZY', 'ZX', '3D', '4T' and 'P'. The first three are simple, two dimensional views for precision. '3D' is a working 3D view which enables you to move around the scene without



▲ Readers can also be sent to the Cinema 4D screen which will display the picture in a window.

disturbing the camera setting. The '4T' mode activates the standard *Imagine*-style viewpoint with three separate 2D views and one perspective view. The last mode, 'P', is the camera view. All of these icons are neatly described in a 'help' tool-bar which displays a single line telling you what each button does. Brilliant.

Movement around the window is accomplished more easily than any other package I have seen. A circular gadget rotates around the chosen axis, an arrow gadget moves you along the selected axis and a small arrow pointing to a large arrow gadget is the scale function. Simple and effective. Loading or creating objects is also very simple, and the same axis and movement controls function identically for objects.

Within no time at all I was zipping around a scene pasting primitives and making bizarre contortions with *Cinema 4D*'s boolean operations, which allow

objects to cut or add shapes to other objects.

Dual purpose

Icons and menu selections that have a little black dot are dual purpose selections. If it's an icon, the right mouse button will bring up the preferences/settings. If it's a menu selection or a hot key, shift does the same.

Because you can use the multitude of hot keys in quick

succession, without having to wait for the screen to re-draw all the time, it is very easy to perform test warps by altering preferences, performing the warp and then hitting undo.

Unlike many other rendering packages, *C4D*'s display never stops you from carrying on. This is a small but brilliant feature that considerably enhances productivity for all operations requiring many attempts at that perfect setting.

C4D doesn't attempt to animate the full wire frame of objects while you're still manipulating. It only draws this when they are static. Like *Imagine* and *Real 3D*, you can also opt to toggle complex objects to permanently stay as bounding boxes in the editor to save lengthy redraws. Another excellent feature is that you can select any number of objects and redraw them partially in wire frame. With this method you can get a rough idea of where things lie even in a very complex scene, without waiting for a full redraw.

Objects, options and text ...

There's a small selection of special objects that *C4D* has built in for ease of use and simplicity. Eg: the 'Figure' option draws a basic humanoid which is handy to form the basis for a more complex model in a real render.

Likewise, the 'Fractal' object creates a relief landscape which would be excellent to map some ground-like texture onto for an instant landscape. 'Emboss' creates a relief object by using an IFF brush. When doing this there are luminance values which you can use to denote the height of peaks.

A 'Sun' setting gives realistic lighting according to the geographic location and the time of day. This is a nifty feature to have integrated.

The last option 'Text', creates 3D font objects which spell out the text you enter. Unfortunately, unlike *Imagine*, *C4D* can't extrude regular postscript fonts, instead you must use the pre-supplied ones which come with the package: Diamond and Helvetica. These are contained in directories full of letters saved as objects. I'm not thrilled with this method but it does work and executes quickly, unlike the more complex *Imagine* method.

If you want to use different fonts it's actually possible to get *C4D* ones you can use on 3D compilation CDs like TGV-CVS's *Amiga Raytracing 1* which also contains a demo of *Cinema 4D*.

Of course if you had *Imagine*, you could extrude a postscript font and import it with the provided 'Castilian' utility which can import (and export) *C4D*, *FastRay*, *Imagine*, *Reflections*,



Turbo Silver, Videoscape, Sculpt, Pagerender and Autocad DXF formats though alas not LightWave.

Cool castillian

In operation, Castillian impressed me a great deal. It not only converts straight point data to duplicate objects across platforms, it also handles materials, textures and object hierarchies (ie, which objects are children of what). This in itself makes it more powerful than many commercial stand-alone object converters. But the really cool thing about Castillian is that it has the ability to batch convert entire drawers. Hallelujah!

Because this has been included with C4D all you need is one or two CDs full of objects and

images from various formats and you have an impressive library. Other rendering packages will generally put you out of pocket by demanding a separate conversion package such as Pixel Pro.

Rendering

When it comes to rendering, again C4D is down to earth. There's a simple render icon which, when selected, opens up the range of render modes. All the usual suspects are present; B&W, Skeleton, Skeleton, B&W Surface, Surface, Scanline and of course RayTrace. A right mouse button click on any of these brings up their preferences. The output settings allow selection of a screen mode as well as aspect ratio and resolution.



In terms of resolution, everything up to HAMMB is supported and when using ScanLine and Raytrace, 24-bit output is also possible.

One seriously groovy feature is that you can render the frame to the selected screen, save that screen and output a 24-bit picture at the same time. No more converting down to view!

C4D will let you cancel a render in progress at any stage. It doesn't wait for a line to finish, which is handy since in RayTrace mode a line could be several minutes to draw. One niggle, though, is that if the render is prematurely cancelled, there is no partial output file. C4D simply deletes it. It would have been nice for it to tidy up the file so that it could be viewed to gauge what part of a picture will look like.

There's quite a few sub-settings for the RayTrace output. Shadows, Transparency, Reflections, Smooth, Textures, Bump, Fog, Multitasking can all be turned off to increase render speed if necessary. Also, C4D can blank the screen which should help speed up the process for people using chip memory. In all the render modes it's actually possible to render just the active (highlighted) objects. This provides a relatively quick way of seeing exactly how objects will look without rendering the entire scene, which would take a lot longer.

How long?

When it comes down to it, rendering times are a major factor for any 3D artist. My impression is that it's significantly faster than *Imagine* and *Real 3D* but stops short of *LightWave*. The Amiga I did most of the testing on is a humble 25MHz 68030 with a 50MHz 68882. It ran fine on our A4000/40 but crashed regularly on a 1200 equipped with a Falcon 68040 accelerator. C4D also

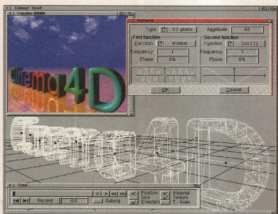
worked very well with my graphics board, running under CybergraphX at lightning speed.

The other major consideration for any rendering package is memory consumption. This is another area where C4D triumphs: it is the most efficient rendering package I have used. The fact that the C4D program itself is a third of the size of *Real 3D* helps. The most impressive aspect however is that the scanline render and raytracer are actually separate programs. When the entire scene is created, it's possible to exit C4D completely and activate one of these point it at the saved scene and away it goes, rendering using settings you made in the editor earlier.

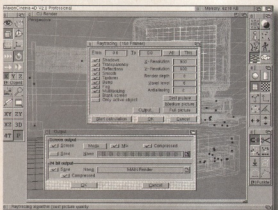
This kind of approach saves oodles of memory. You can carry on using your Amiga with the small render window showing its progress and time elapsed.

Cinema 4D is now definitely my favourite 3D rendering package on the Amiga. It's absolutely ideal for hobbyists, though its relative simplicity and minor limitations may not always suit the professional user. ■

Mat Bottinson



▲ Here the deform tool is about to be applied to the large text object. However, before doing this, I'll record the position so Cinema 4D can animate the transition from normal to deformed.



▲ Here the rendering settings are being modified for Raytrace mode. The output can be speered to a 24-bit file, bitmapped Amiga file and rendered directly to the screen all in one go.

CINEMA 4D £199.99

A600	system requirements: 682x and 2MB of RAM. 683x recommended. More memory and a faster CPU a definite advantage.
A600+	ease of use 92% The most intuitive rendering package I have ever seen. The 380-odd page manual is extremely well laid out.
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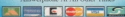
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Mac Emulation and ShapeShifter

■ Price: About £30.00 ■ Developer: Christian Bauer ■ Supplier: PD/Christian Bauer



A Macintosh for under £30?
We find out if it's too good
to be true by installing
ShapeShifter on our Amigas.



Macintosh™. The world famous 'user friendly' computer made by Silicon Valley based Apple Computer Corporation has both delighted and driven to tears users attempting to get to grips with its enigmatic system.

Enigmatic because it's the only computer in the world that professes to be idiot proof by design. In fact it keeps so much of its inner workings from you that it's difficult to make it do anything unless there's a big button on the keyboard or the box. It's intensely frustrating for a computing enthusiast, but because of its acceptance in the business and publishing world where these traits are valuable it has had some of the world's best software written for it.

A lot of this software has become the industry standard too. Software that is sadly lacking on the Amiga since the corporations that have developed it prefer to count sales in millions rather than thousands, or at least attach four figure prices.

Motorola

It's not all bad though. The Macintosh™ is the only other mainstream computing platform to use the Motorola 68000 CPU. That means that on the Amiga the chip instructions of a Macintosh™ program do not need to be emulated in the same way as a PC emulator would have to when emulating

the 'foreign' Intel 80x86 series CPUs. This concept isn't new. Amax and Emplant are two examples of Macintosh™ emulator solutions that set the pace. Both of these rely on hardware to read the Macintosh™ operating system from ROMs which must be purchased from Apple to keep on an even legal keel. However, it's long been suspected that there's no real need for any extra hardware at all.

Supercheap!

Causing a bit of a stir in the Amiga community, a German based programmer, Christian Bauer, released a demo version of ShapeShifter onto the public domain some time ago. ShapeShifter is a software only Macintosh™ emulator and one that's arguably even better than the hardware solutions. Some key features are disabled in the 'evaluation' version of ShapeShifter which can be got from various PD libraries and the Amintet. These can be unlocked with the addition of a special 'key-file' which can be purchased direct from Mr Bauer for the ridiculously low sum of US\$40. And what sort of real Mac™ do you think you'd get for that sort of money? Try McDonalds...

Whilst ShapeShifter doesn't have to emulate the CPU, it does have to intercept accesses to the Macintosh™'s hardware, then translate and redirect them to the



▲ An early version of one of the games pages in this issue appears via Dark Express and ShapeShifter on the magazine's 4866. Much to the surprise of our Mac designers.

Amiga's hardware. Put simply, this means that Macintosh™ programs sending and receiving data from the serial port will work nicely with the Amiga's serial port. And likewise through the parallel port.

However, there are some difficulties facing real Macintosh™ emulation, not least of which is emulating a machine that's essentially inferior to the Amiga (I say this with fear in my soul - Helen, our art, editor has threatened to hunt me down for

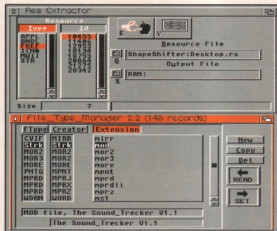
blasphemy). One being that standard double density (DD) Macintosh™ floppy drives utilise a much older recording format than Amiga units. So old that it's not possible to read or write standard Mac 800K disks without the extra expense of a Macintosh drive and the CrossMac package.

Fortunately Apple saw the error of their ways and moved to the modern system for their high density (HD) drives. It's possible to format DD disks (which work



Welcome to Macintosh.

▲ The first signs of life on ShapeShifter. It worked well enough using the Amiga's built in graphics, but only in black and white. For proper colour with speed, a graphics board is needed.



▲ Out of necessity Cross Mac comes with utilities to access the Macintosh file system's (HFS) data and resource forks which otherwise are transparent.

out at about 720K) in *ShapeShifter* which the Macintosh can read. This won't help for the serious business of installing the Macintosh system software though: if you don't have a high density drive, and that's most of us I'm afraid, you're out of luck. You'll either have to either purchase a HD drive just for installing the system disks or resort to more drastic means which include using the DiskDup+ software on the Macintosh to turn the system disks into a file.

Fortunately the AmigaGuide documentation that comes with *ShapeShifter* clears up many of these pitfalls but it's worth noting that it's not a simple task.

Funky chunky

The next major difficulty is graphics. Like the PC, the Macintosh uses a 'chunky' pixel display. That means that all the information for one dot on the screen is contained in one single byte. On the Amiga this is held in several bytes. The down side of this is that when emulating a colour Macintosh, *ShapeShifter* must convert the graphics standard onto the Amiga's native display which makes it too slow to use in real terms. However, in black and white mode the Amiga's display is chunky and so it runs at full speed.

For those Amiga users that are serious about emulating a Macintosh, some kind of



▲ Myst. Another reason for emulating. You shouldn't have any problem running Mac games.

graphics board is pretty much essential. And this unfortunately means a big-box Amiga. Suddenly *ShapeShifter* emulates a colour Macintosh II with no performance drop. In fact we ran *ShapeShifter* on the office 4000/40 with a GVP EGS Spectrum graphics card and the result was astounding. It ran faster and more fluidly than most of the real Macintosh equipment in the office! Everything we tried ran on *ShapeShifter* with no hitches. *MacWrite Pro*, *PhotoShop*, *NetScape* and even the mighty *Quark Express*. The latter drew some attention around the office since *Quark* is used to produce just about every Newspaper and Magazine in the world including most of EMAP's regular Mac users were astounded when I clicked on a *ShapeShifter* icon on the Workbench, hit 'start' and suddenly the Amiga turned into a Macintosh. But the key to their amazement was the fact that

while the Amiga is happily emulating the Mac, it's also multitasking in the background (unlike the Mac) with *ShapeShifter* being, in effect, just another screen.

Hard drives and hard files

The serious business of organising some storage space for *ShapeShifter* can be accomplished in one of three different ways. The simplest is to create something known as a 'FileDisk'. This is a virtual disk that is actually just one large file stored anywhere on your hard drive. This is handy because it means that you don't need to repartition your hard drive. The next method is to set aside a partition of your hard drive specifically for *ShapeShifter* to treat as its own. We used this

Cross Mac

The Amiga comes with CrossDOS but what about CrossMAC? Let's find out if it's as essential:

Commodore licensed CrossDOS from Consultron to include in all Amigas which shipped with OS 2.1 and higher. A welcome move indeed, but given that the Amiga has more in common with the Macintosh than the PC, it's surely worth investigating the options if the need arises to read and write Macintosh or 'HFS' formatted disks.

However there is a major catch. Unlike double density PC or MS-DOS formatted disks, the Amiga's floppy drive just can't read, even with a special handler, DD Macintosh disks. The reason being that Apple used a different format for recording them which is fundamentally incompatible (they change rotation speed depending on the track being accessed).

Luckily, Mac high density drives do use the same format. So if you have a high density floppy drive and *Cross Mac* you'd be able to read and write Macintosh HFS formatted disks. The question is whether you need to. You can read and write MS-DOS formatted disks on both double and high density drives which the Mac can also read. The capability to do this comes free with the machine so if simple file sharing is the order of the day, it appears there's no need for *Cross Mac* at all. Likewise *ShapeShifter* comes with a Mac handler that allows the Amiga to access all the active Macintosh volumes. *ShapeShifter* can even format 720K 'Quasi-Mac' disks that will function fine in a real Mac. So the usefulness of *Cross Mac* would seem to be severely limited.

What *Cross Mac* is good for though is accessing Macintosh hard drives

without the need for running full Macintosh emulation. Possible uses could include accessing files on removable media such as a Zip or Syquest formatted on a Mac. If this is what you need to do and running *ShapeShifter* is not an option, *Cross Mac* is the only way to do it and as such is essential. *Cross Mac* also comes with tools for salvaging files off corrupt Macintosh disks and a mode selector commodity that allows *Cross Mac* to be toggled between showing Macintosh resource or data forks or both. This is useful since Macintosh files are actually made up of two parts. One being the actual data and the other saying what kind of file the data is. For most of us though, *Cross Mac* isn't necessary, even if you do need to share data with a Macintosh. Especially since its actually more expensive than emulating a real Macintosh!



▲ When running ShapeShifter you can alter the various settings above to tailor it to your machine or needs. It is very flexible, but to get your Amiga running as a genuine colour Mac then you'll need a graphics board.

method and it became apparent that it ran no slower than any of the real Macs...

Alternatively it's possible to emulate an entire SCSI hard drive by simply telling ShapeShifter the name of your SCSI driver (not suitable with IDE interfaces) and the unit of the drive. Users of ShapeShifter serious about Macintosh—emulation may prefer to buy a completely new hard drive for such purposes. CD-ROM emulation is also carried out with the same level of ease. The Apple CD-300 can also be emulated so no special CD-ROM drivers are necessary on the Mac side.

How useful?

Ultimately, ShapeShifter's usefulness depends on what you want to do with your new virtual Mac and what hardware you have. It's really only suitable if you already have some kind of Macintosh since you'll have to run some programs that come with ShapeShifter to capture your ROM Images. This is quite fiddly and it's worth noting that doing this

on any machine other than your own is illegal as is running both ShapeShifter and the ROM donor simultaneously. Presuming this is the case then you'd need to either use PC formatted disks all the time or purchase a high density floppy drive.

However, you may actually find that you don't need to share data with another Macintosh—via floppy disk at all. MacTCP functions very well with any Amiga network driver so networking to real Macs—via Ethernet or the like is quite possible.

In the final analysis, yes, it's great, but unless what you want to achieve can be done in techno black and white then a big-box Amiga with a graphics board is essential. If you have the kit though and you need to run an Amiga and a Mac—ShapeShifter is ideal.

Now, if only you could run all this software with a proper operating system like AmigaOS, I'd be very happy indeed! Anyway I'm off to play *Dark Forces*. ■

Mat Bettinson



▲ The big advantage of running a Mac—on your Amiga is its ability to multitask. While ShapeShifter is running you could, using a key command, instantly switch back to your Amiga and Games 40.

Where to get ShapeShifter

ShapeShifter is shareware. The so-called 'Evaluation' version resides in the Public Domain and so can be purchased from a PD Software house.

Try: 17 bit Software, 1st Floor Offices, 2/8 Market Street, Wakefield, West Yorkshire WF1 1DH. 01924-366982. The disk to ask for is ShapeShifter 3.2a its code is 3903 and it costs £1.00 plus 50p postage and packing.

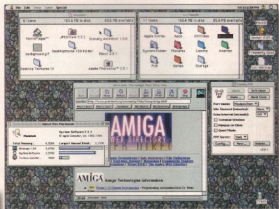
Those with Internet access can FTP it from any Aminet mirror in the misc/emu directory.

Finally to unlock the added features of ShapeShifter such as CD-ROM, SCSI and device-disk (Mac HD partitions) capability, ShapeShifter will have to be registered with the author, Christian Bauer. Methods of payment are:

- 50 German Deutch Marks or US\$40 in cash or ...
- A Eurocheque over 50 German Deutch Marks or ...
- A Foreign cheque for over 60 German Deutch Marks or \$50 US or ...
- A Postal Money Order over 50 German Deutch Marks.

The address to send it to is: Christian Bauer, Langenaust. 65, 56070 Koblenz, Germany.

Note: There's a ShapeShifter FAQ on this months cover CD. The full path is Aminet/docs/help/ssfaq09.lha.



CROSS MAC £89.95

system requirements:
Any Amiga.

A500	ease of use.....	92%
A500	Very easy to use. Manual is well written.	
A600	performance.....	85%
A1200	It works if you need it. Some hard drive tools would have been nice.	
A1500	value for money.....	55%
A1500	Relatively overpriced for something that's barely necessary.	

OVERALL

Works well, but a bit redundant and costly.

77 %

SHAPESHIFTER About £30

system requirements:
KS 2.1 and above, 68020 CPU and above, 4Mb RAM minimum.

A500	ease of use.....	85%
A500	It's a bit to get going but most of this is the Macs fault.	
A1200	performance.....	95%
A1200	Look it's a Mac on my Amiga.	
A1500	value for money.....	93%
A1500	I'd much rather buy a Mac Quadra. Not.	

OVERALL

The near perfect emulator. Amazing.

95 %

Falcon 040

■ Price: see box out ■ Developer: MacroSystems ■ Supplier: Power Computing ☎ 01234 843388

Another record is broken, as the wind-assisted Falcon 040 accelerates the A1200 past its personal best.

A 68040 processor on an A1200 accelerator card: they said it couldn't be done – or did they say it shouldn't be done? Either way, many didn't expect to see it happen, but it has, with the release of the Falcon 040 trapdoor card.

The reason they said it couldn't be done was because the 68040 processor gets very hot unless there's some kind of cooling system involved. It's common practice to mount small fans on top of processor chips, which is fine if there's room inside the computer, but the A1200 isn't exactly the most spacious machine under the bonnet. However, with the Falcon 040, Power Computing have found a way of squeezing the rather large 68040 chip and a fan into the A1200.

Fitting the board is rather more tricky than with other trapdoor expansions. Unfortunately new Amiga owners will invalidate their warranty by installing it, as the top of the Amiga's case needs to be removed. This won't be a problem for most users, since their warranties will have expired by now. Once the board has been

plugged into the A1200 expansion slot, the next step is to attach the fan, via a self-tapping screw that needs to be bored up through the underside of the A1200 case. The fan sits half on the processor chip, overhanging to one side, but it seems to give sufficient ventilation.

Once the board is in place, the trapdoor will not fit without cutting out a couple of holes to accommodate the SCSI connector and the RAM SIMM. To save you hacking your trapdoor yourself, Power Computing are supplying modified trapdoors with the Falcon.

SCSI option

Sensibly the Falcon comes with a SCSI option. Upgrading the basic board to SCSI costs a mere £29.95, for which you get a cable that plugs into the board, and leads through to supply a SCSI port from the spare panel on the back of the A1200 (next to the joystick ports). How come this is so cheap? Well the Falcon comes with a SCSI controller chip surface-mounted as standard. It's this chip that does the hard work.

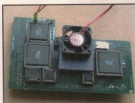
This is surprising, as it must inevitably push up the price of the non-SCSI board option. Maybe it would have been better to exclude the controller chip on the non-SCSI configuration.

As you can see from the price panel here, the Falcon is available in a number of processor configurations. Heat problems may occur with the faster 040 chips, such as the 50MHz version, although we had no such problems with the review model. A 68060 version is due shortly, but at the moment 060 chips are rather hard to get hold of. Once they're more widely available, Power Computing are offering an upgrade service, in which you trade-in your 040 for a new 060. The 68060 is actually better suited to a board such as this, as it runs much cooler, and of course much faster.

How fast?

Is it fast? Of course it is! The board we tested was fitted with a 25MHz 040, and in many tests came out equal with a 25MHz A4000/040, which is logical enough, but in others tests it beat the A4000/040 by a fair chalk, thanks generally to the A4000's rather crippled memory bus. The comparison charts here show the relative speeds of five Amiga systems when put through various speed tests using the AIBB utility. From top to bottom, the setups are a 25MHz 040 Falcon, a 25MHz 030 Blizzard 1230-III, a stock 2Mb A1200, a 25MHz 030 A3000, and finally a 25MHz A4000/040. The Falcon excels in most tests, confirming that it is indeed the fastest A1200 accelerator currently available.

It's good to see the 8Mb SIMM working in harmony with the PCMCIA slot, which is essential for anyone who really wants to power up their A1200. While the Falcon is far from the neatest accelerator solution, it works, and it works fast. It's not cheap, (you'll still have to pay out for some RAM) but for an extra £29.95



you've got yourself a very fast SCSI interface, and the option to upgrade to a 68060 without replacing the board. ■

Tony Horgan

Prices and Configuration

The Falcon is available in a number of configurations. At the time of going to press the 68060 options were not available, but should appear as soon as the shortage of 68060 chips is resolved. These prices are for Falcon boards with no RAM.

Falcon 040 lc	£429.95
Falcon 040 rc 25MHz	£499.95
Falcon 040 33MHz	£549.95
Falcon 060 50MHz	£649.95
SCSI adaptor	£29.95
Upgrade to 060	£199

FALCON 040

system requirements:
Any A1200

ease of use.....70%
Fitting it is a fiddle, but there are no major operating problems.

performance.....90%
Extremely fast with a decent SCSI controller on-board.

value for money.....76%
Rather pricey, but the latest technology is never cheap.

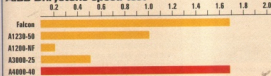
OVERALL
The fastest A1200 accelerator, with SCSI too.

83%

AIBB Render beachball test



AIBB Dhrystone speed test



Final Writer 4

■ Price: £74.95 ■ Developer: SoftWood ■ Supplier: Softwood Products 01773 521606



The king is dead, long live the King. The Amiga word processing crown passes onto SoftWood's version 4 and Andy Leaning compares the bloodline.

Final Writer 3 from SoftWood Publishing has long owned the crown of best word processor for the Amiga. It's rich feature set, elegant user interface and rapid performance has made it a firm favourite for many thousands of users around the world. It can do practically everything a mortal user could want, from entering and amending letters through writing complex reports with tables up to producing brochures requiring DTP style capabilities such as picture importing and positioning.

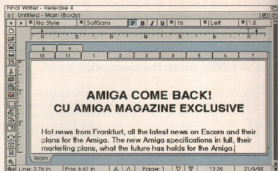
But now SoftWood has killed off the King, and released version 4. Is it as good? The question has to be: What could they possibly add to make it better and has it lost any of its simplicity in the attempt to add new features?

Take a look at the screen shots on this page and you'll see something new. Click Tabs. It's user interface has been overhauled completely to make it easier to get to the various features of the program and to move around the document. Click Tabs are the most obvious sign of this change. Popular in PC applications they're a computerised version of traditional ring-binder folder tabs, where a folder containing many

different pages is divided into sections, getting to the information in a particular section is just a matter of selecting the related tab and turning that sheet over. In Final Writer the folders are requesters and the tab pages being sheets in the requester that contain related commands or information. Now instead of jumping from requester to requester a single requester is used, with the different sections accessed via the tabs.

But SoftWood's use of Click Tabs goes well beyond the normal usage in PC and Mac word processors. For the first time in any word processor that I've come across, Click Tabs are also used on the document Window to provide rapid access to different pages. Just click on a pages corresponding tab and you're instantly taken there - brilliant! The only downer is that as a document size grows and more pages are added the new tabs are displayed vertically in rows, eating up the screen space used to show the document. It could have been useful to have the page tabs displayed as one long line that could be accessed via some automatic sideways scroll option.

Other changes as part of Final Writer 4's interface overhaul



▲ Vertical Here the use of click-tabs to access multiple pages in a document can be seen. Notice how the tab buttons occupy vertical space, eating up valuable screen room.

include a thinning out and re-organisation of its menus. There are now fewer nested menus, and an information and status bar at the bottom of each document window showing the current line and character position, page number and time and date. Clicking on these will either bring up a requester (the View Preferences for character and line buttons and Goto Page for Page Number) or insert information into the document (the current date or time). You can also jump quickly up and down one page at a time or to the top or bottom of a document via further buttons on this bar.

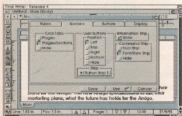
Tool bars

The Final big change is the tool

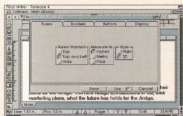


▲ From here the user tool bars can be created. Drag the icons from the list on the left to the list in the middle. It would have been nice if it told you what the icons represented before they were dragged however.

bars. At the top of the Window is a button that toggles the top Window buttons between a Font/Style selection for paragraph and font type selection and a Program command strip to manipulate tab stops, master pages, hyphenation etc. Along with these tool bars is a 'user button strip' that can be positioned on any of the four sides of the screen or have floating around



▲ A click-tab requester in action. These two screen shots show how the information in the request changes as different tabs are selected.



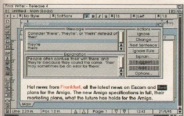
The price is right

The RRP of Final Writer 4 is £74.95, which given the power and features of the program, is great value for money.

Registered Final Writer users will be notified shortly of an upgrade offer allowing them to upgrade for a paltry £24.95 (plus £2 for postage), registered users of other SoftWood products can also get it for a reduced fee, although at the time of writing no details were available. UK distribution is by Gordon Harwood Ltd.

Thanks for the memory

PCs need ridiculous amounts of hardware and RAM to do even the most simple things. Want to play space invaders? You'll need a Pentium with 8Mb RAM. If you just want to edit a text file in Windows you'll need 4Mb RAM minimum. Thankfully the Amiga hasn't become this greedy yet and probably never will. But if you want powerful software you have to accept that, even on the Amiga, you're going to need more than the standard hardware configuration. For *Final Writer* you'll need a bare minimum of 2.5Mb of RAM (I'd recommend 4Mb or 6Mb as a comfortable minimum) which compares well against Word for PC. That would need at least 8Mb! It's also worth noting that with the release of Windows 95, the increased demand for memory is going to send RAM prices soaring, so if you're planning to upgrade do it soon.



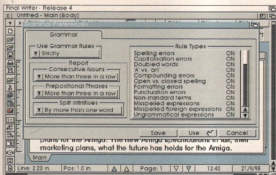
▲ The grammar checker is active. Superb!

away from an edge. Eight button strips can be created each containing a chosen collection of commands and better yet, the button strips are automatically resized to fit within the current window size, so button strips do not disappear off the edge of the screen anymore!

As you've probably guessed by now, I'm very impressed with the new features of *Final Writer*'s user



▲ If you don't like the rules the grammar uses to check your work, change them!



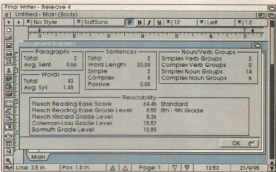
▲ More click-taps in action! Even the About box has got them.

interface. SoftWood has borrowed the best bits from many other word processors, frequently building on them to provide one of the nicest front ends of any word processor. But a good user interface is no good unless the program has features worth using, and here

too *Final Writer*'s latest version has been greatly improved.

There's only one real major new feature, but what a feature it is. Along with the spelling checker and thesaurus *Final Writer* now has a grammar checker. Cool huh? Anyone who has used SoftWood's *Proper Grammar II* will feel at home with it, but now it's an integral part of the word processor. Either select a block of text or let it work on the entire document and the Grammar option will identify grammatical mistakes, and outline the offending word or sentence and in many cases, helps you to understand and correct the mistake.

Having used many grammar checkers I was fairly sceptical of this facility. It's all too often a case that to understand the 'help-



▲ Allie, an score from Belgium is all yours! Statistics - see what the Final Writer judging panel thinks of your writing with a readability score.

ful messages that the grammar checker produces you first need a degree in English, and if you've got a degree you'll most probably not need a grammar checker anyway. Another failing is that the rules that grammar checker uses are normally so rigid and formal that they can't handle the modern, everyday English that most people now write. Thankfully, *Final Writer*'s grammar checker suffers from neither problem too badly. The messages it produces are pretty much self explanatory and easy to understand. It's also simple to change and edit the rules and instructions used to identify grammatical mistakes, thus catering for your own personal style.

With the grammar check *Final Writer* now also has a much improved statistics report. Along with the usual word count there's a readability score using the fairly standard Flesch reading scale and a figure giving the educational standard needed to be able to understand the document - most tabloid newspapers try to aim for a reading age of between 11-13. Because of SoftWood's American background the educational standard being used for this purpose is based upon US grading.

Final count down

Final Writer 4 is a landmark piece of software for the Amiga. No other application I've seen offers such a complete range of features for its intended use. Perhaps the only one that comes close is SoftLogic's *PageStream 3.01* for DTP users. Everything you could want in a word processor, and a little bit more, is within *Final Writer*. Ironically if you're looking for simple DTP capabilities *Final Writer* is now probably a better bet than *PageStream*.

It's often the case that when software houses are updating their programs and adding new features they lose track of original elements that made their application stand out. In the case of *Final Writer* these were a simple and elegant user interface and good performance. When I read SoftWood's brochure which proudly describes how menus, requesters and document windows had been redesigned I feared the worse. But surprisingly, this update really adds to the original. The new front end is far, far, better with its click tabs, status/command line and customisable floating tool pallets. *Final Writer* is without doubt the first word processor I've used in a long time and one with which I felt at home with immediately - it's so wonderfully intuitive.

The final conclusion? With *Final Writer* release 4 SoftWood have given the Amiga a word processor that you can show to your PC and Mac owning friends with pride. In conclusion, it is quite simply the best word processor for the Amiga, in every respect - Get it now!

FINAL WRITER 4

System requirements:
Workbench 2.04, a minimum of 2.5Mb RAM and a hard disk.

ease of use 94%
Whether double one of the most easy to use software titles for a long, long time.
performance 90%
Fast, solid performance.
value for money 93%
A fully featured word processor, built in greater checks, it was the DTP capabilities what more could you ask for in a DTP program.

OVERALL
This is what Amiga software should be like.

Technosound Turbo 2 Pro

■ Price: £39.99 (8-bit model) £49.99 (12-bit upgrade) ■ Supplier: New Dimensions ☎ 01291 690 933



▲ The 12-bit Technosound cartridge draws power from the disk drive port, and also features an input volume control.

Technosound is quite possibly the Amiga's most well known sampler. It's been around for years, with a series of updates extending its name to the impressive title of Technosound Turbo 2 Pro. This latest incarnation is available in the standard 8-bit configuration, with the option of a 12-bit add-on for an extra £49.95.

For the benefit of anyone new to Technosound, the system is a combination of hardware and software, compatible with all Amigas. The hardware part is a cartridge that plugs into the parallel port. While the 12-bit add-on has a cable that plugs into the serial

12-bit cartridge also has an input volume control. A stereo mini-jack to stereo phono lead is also included. On the software side, all of the sampling, effects, editing and sequencing is controlled from a single program.

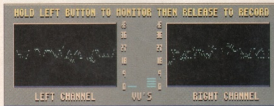
Getting started

Before we jump into the details of the software, here's a word of warning. The hard drive installer script assumes you want the whole Technosound disk copied over to your boot partition. So the best way to install the program is to manually copy the files to your chosen hard drive destination. Right then, on with the show.

Technosound uses the familiar sampler screen layout with the waveform filling the top half of the screen, and the bottom half taken up with a bank of buttons and status boxes. Sampling your first sound is easy enough, but not as simple as it should be. The first thing to do whenever you take a sample is set the volume to an optimum level. There's a

If you want to grab your own samples with our AudioMaster IV cover disk you'll need a sampler cartridge. How about Technosound Turbo 2 Pro?

port from which it draws its power supply. There's a through-port included so that further devices can be plugged, so once connected you don't have to unplug it every time you want to hook-up something else. The



▲ Monitoring the incoming sound is essential for accurate recording at the optimum volume level, although it's a shame the software doesn't offer simultaneous aural and visual monitoring.

spectrum analyser which looks pretty, but is actually useless because there are no calibrations on the graph to tell you when a maximum signal level has been reached. You can listen to the incoming sound or use the twin oscilloscopes and the level meters, but you can't do both at once, which makes cuing up your sound source more awkward than it needs to be.

The sample rate has to be set using a fiddly slider, as there's no way of entering the rate directly

from the keyboard. Once you've got your sample in memory, editing it is fairly straightforward. The left and right mouse buttons are used to define areas of the sample to be cut and pasted, and the filled-wave style of displaying the sample is nice and clear. Zooming in on specific areas is vital for precise editing, but the highest zoom factor available in the main window is one pixel per byte (unlike OctaMED's sample editor for example, which allows finer magnification). This little problem

Editing Effects

One of the most important areas of any sampling software is the editing effects menu. Quite often your samples will need processing, to clean them up or to customise them. Technosound offers all the usual cut and paste features, along with a few of special effects.

The best tool for cleaning up sounds is the filtering section. With the help of some scientific-looking frequency graphs, this offers precise filtering of specific frequencies using the Butterworth and Chebyshev algorithms. This is Technosound's trump card in the editing game, and even though it's made over-complicated by the presentation, it's a very useful feature.

The rest of the effects include a phaser, user-definable echoes and delays, amplification with automatic clipping detection, re-pitching in quarter note steps, compression to halve the size of the sample, reversal and vertical flipping of the wave. There are also functions to convert to and from 8 and 12-bit samples. While it has the basics covered, some more creative effects would have been welcomed.



▲ The two boxes below the 'Cold Filtered Beat 2' sample name are close-ups of the sample, used for more accurate looping and cutting.

Realtime Effects

When you're not using Technosound as a sampler, you can put it to good use as an effects module. Sound is passed through the sampler, altered by the chosen effect and pumped back out through the Amiga's audio jacks. Unfortunately the effects don't work in 12-bit mode, but the 8-bit signal is clean enough. On the menu we have: phaser, echo, delay, stereo sweep, synthesis, pitch up and pitch down. These can all be adjusted, and come with a few presets that can be cycled through. The phaser is good enough to be used on semi-professional productions, and the delays could be useful with some external high frequency filtering to mask the inevitable noise. 8-bit resolution isn't really sufficient for echo effects, because the sound to noise ratio is not too hot on the quiet echoed parts.

It's worth remembering that these realtime effects cannot be used at the same time as any other tracker program, such as Technosound's tracker or *OctaMED*, as the sound channels are all tied up generating the effects. If you did want to use these effects to process your modules, the best option is to use two Amigas - one to play the music and one to handle the effects.

A feature that has helped endear Technosound to the masses is its 'Funtime' effects menu. An impressive array of 18 voice-changing effects are available - just plug in your microphone and start singing. There's echo and reverb, dalek and alien impressions, sex changes, and plenty more. Most of them change the pitch of your voice, and are stacks of fun. Try creating feedback for some wild frequencies!



▲ The realtime effects section (see panel above) offers a variety of ways to alter sound in realtime, some useful, some just for fun.

is helped out by a special pair of zoom windows that can be called up in place of the spectrum analyser. Using the arrow buttons, you can move back and forward through the wave in steps of eight

Techno Tracker

There's also a tracker section built into the main program. This works pretty much the same as other trackers (ProTracker, OctaMED etc) but in a simplified form. Up to four samples can be played at once, and the traditional vertically scrolling numerical block display is used to enter notes from the keyboard. Strangely, the tracker song modules that it creates do not conform to the tracker file standard, so you can't load them into any other software packages. Even so, it's useful to have on hand to use as a scratch pad for jotting down any ideas which spring to mind.

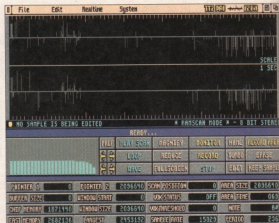
bytes, which is precise enough for most applications. Although if you really need super smooth loops you may still be left wanting.

These zoom windows are the only way of seeing if your sampled wave is 'clipping' (reaching the maximum volume level), because the main sample window is actually taller than the sample wave, giving the impression that you still have some

headroom left, when in fact you are already at the maximum level. If all you want to do is sample some sounds and play around with them, this sort of thing isn't a problem, but serious musicians concerned with optimum sound quality will find this frustrating.

Another quirk of the waveform display crops up when working with very small samples. For example, a short sound such as a closed high cymbal or a rimshot will not show up at all on the main sample wave window.

You've probably guessed by now that Technosound doesn't use a standard interface. Its own is similar to the Amiga's windows and menus system, but inferior in many ways, with irritating inconsistencies.



▲ The realtime feature allows samples used by previously loaded programs to be taken directly from memory, edited and saved back out as BF files for future use.

For example, the 'minimise' and 'quit' gadgets on the menu bar do absolutely nothing - they're just there for show! Likewise, it's impossible to click in the status boxes to change their values as you would with any standard Amiga program.

The 12-bit option

For an extra £50 or so you can upgrade to the 12-bit version. Although you won't be able to use 12-bit samples directly with most trackers and sequencers, you can play them back from the Technosound software. Unfortunately, neither the tracker, sequencer, MIDI module, hard disk record nor realtime effects features work in 12-bit mode. This is a great shame, as these would have made the 12-bit option far more useful. As it is, it's really only worth using the 12-bit sampling to create better quality 8-bit sounds. Sampling in 12-bit and downgrading to 8-bit should produce finer quality sound. With the price approaching £90, it's nosing

its way into territory occupied by HiSoft's Aura (at around £100). Aura is only available for PCMCIA-equipped Amigas, but it has the advantage of software support from OctaMED and superior host software.

Conclusion

If this was to be rated on sheer number of features, then it would be up there in the 90% region. Boasting such delights as direct hard drive recording, a built-in tracker, MIDI module emulation, a cue-list sequencer, stereo sampling at rates far higher than CD, a 12-bit option and plenty more, on paper it certainly sounds like a killer system.

While the sound quality is fine, if you take time to eliminate interference from other appliances, Technosound is still held back by awkward working methods that should have been overhauled years ago. ■

Tony Horgan



▲ The built-in tracker sequencer is handy for jotting down ideas, but unfortunately is incompatible with other tracker programs.

TECHNOSOUND TURBO 2

A500	system requirements: Any Amiga with 1Mb RAM or more.
A500+	ease of use:60% Polkey GUI with some awkward controls.
A500	performance:70% Good quality in 8-bit with a bit of work.
A1200	value for money:80%/65% A fair price for the 8-bit system - 12-bit option is not too bad.
A2800	OVERALL Lots of features marred by a dated interface.
A3800	69%
A6000	

A collection of essential hardware tools. Like: diskette 2, Menu system, Virus Checker, more.

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
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Article by David Hovell

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Image Studio 2.2

■ Price: £14.99 ■ Developer: Andy and Graham Dean ■ Supplier: LH Publishing ☎ 01908 370 230



Shareware turned commercial software - can Image Studio take on the big boys?

The Amiga is blessed with a multitude of graphics packages ranging from PD efforts to expensive commercial packages such as *Image FX* and *Art Department Professional*. Having just moved from shareware status to a commercial package *ImageStudio 2* is bundled with a 70 page printed manual. Priced at £15, it's still in the shareware price range so if it can handle your needs, it could represent excellent value for money.

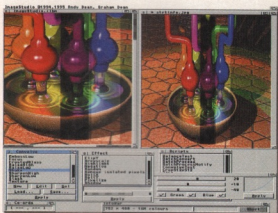
In the modern vein of image processing packages, *ImageStudio* provides you with a preview picture of the internal 24-bit buffer. Interestingly it allows you to perform some functions on a regular colour mapped picture but not others. You'll then be asked to convert the picture to 24-bit after which the 'convolves' and 'effects' will function but also only to a rectangular marked area which limits their use somewhat.

This new version has the option of a colour preview which will be well met for those that enjoyed the fast mono preview in previous versions. Resizing the preview window actually resizes the image which is great to scale down very large pictures.

ImageStudio also has built-in virtual memory that functions even on Amiga's with no MMU. Very handy for working on very large 24-bit pictures with multiple undo levels (another strong point).

ImageStudio 2 currently supports importing of all IFF images from monochrome to HAM8 to IFF-24, BMP, GIF, JPEG, PCX and Targa. It also exports in all those formats with the addition of generating Encapsulated Postscript files if required. Colour reduction is also excellent and converting between image formats of different colour depths is another use to which *ImageStudio* is ideally suited supporting several types of dithering including some I'd not seen before. The manual is concise and well laid out featuring some excellent tutorials showing how to use some of the features such as the 'Remove Isolated Pixels' function useful to clean up dirty pictures. More often I referred to the on-line

AmigaGuide documentation to clarify some points although the package is intuitive enough to get to grips with by self exploration. The Balance, Effects, Convolves and Co-ordinates GUIs are opened and closed by toggling menu options. The positions can also be used to provide a neat working environment to suit. What *ImageStudio 2* doesn't do could possibly be bolted on after the fact with the addition of some other shareware software with a few Arxex scripts to act as the 'glue'. Knowledge of Arxex would greatly expand the usefulness of the product. For instance it could be tied to the shareware Main Actor animation package to batch



▲ Here we can see the effects of some of the processes on both the preview window and a hi-colour viewer showing the real result in 24-bit open as *ImageStudio* public screen.

process entire animations despite the fact *ImageStudio* doesn't handle animation itself. Some useful Arxex scripts are provided. I especially liked the one to convert the current picture into an Icon.

I found *ImageStudio 2* to be ideal to perform basic operations quickly and with a good feel for the final results. A typical session might involve loading a picture, cropping to size, gamma correcting (shifting the balance of the colours to suit printing) and finally saving out in a different image format. For this kind of basic operation, *ImageStudio* can't be beat for speed, simplicity and features. However, it has serious limitations which would make it completely unsuitable if more involved functions are required such as image compositing (blending together multiple images) or applying convolves to areas that are not rectangles and even loading multiple images simultaneously is beyond *ImageStudio's* capabilities. Simply put, *ImageStudio* is a poor man's *Photogenics*. If you need a fast, quick and simple package for finishing up your renders or what-



▲ Possible to make Pam look better? Here we remove the last of her Monishes with the 'Remove Isolated Pixels' function.

er, *ImageStudio* can't be beat and for 15 quid it's a positively meagre price to pay for such a pleasant package to use.

IMAGE STUDIO 2.2

system requirements:
Any Amiga with KS 2.84 or above and 1Mb of free memory.

ease of use 94%
So easy it's often preferable to use over bigger packages.

performance 83%
Well featured for price but order powered for others.

value for money 92%
Shareware came of age. A steal at the price.

OVERALL
The no less Image Processor. Excellent.

90%



▲ Converting 24-bit renders down to native Amiga screen-modes is a use for which *Image Studio* is ideally suited.

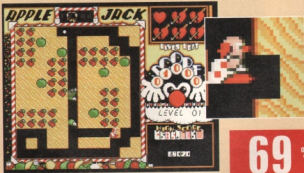
PD Scene

The PD Scene is alive and kicking. Tony Horgan gets his shins bruised this month on a quick stroll through the Public Domain.

Applejack game

Mr Do! comes out of retirement to make an appearance in *Applejack*. For the benefit of those who missed out on *Mr Do!* the first time round, it's like a cross between *Pacman* and *Boulderdash*. *Applejack*, as he's now known, runs around digging tunnels in his pyjamas, collecting fruit and dodging the nasties. This version really is a little on the slow side, but still manages to retain most of the original's gameplay.

Available from: Mon PD, 9 Lon-y-Wylan, Llanfairpwll, Ynys-Mon, Gwynedd, LL61 5JU. £1 plus 50p P+P.



69 %

Miracles AGA demo

Real time ray tracing is definitely flavour of the month on the demo scene at the moment. With the AGA demo, you can see that the screen resolution is a little chunky, but you'll be pleased to find out that the solid shiny objects will still impress all those who like to see real time ray traced shiny objects (but you could have worked that out for yourself I suppose). The often-rendered and much maligned, herbivore, the Lightwave triceratops dinosaur makes an appearance, before making a flight across a slightly ragged landscape. One for all of the dinosaur lovers out there.

Available from: Pixel Digital PD, Unit 6, Laurel Business Centre, 15 Laurel Road, Liverpool 7. Tel: 0151 259 4017.

81 %



Control AGA demo

3D graphics is the pulsing theme that runs throughout the whole of this two-disk demo from Oxygen. Anything impressive that can jump from your Amiga's screen is

here: there are pre-rendered sequences, real time vectors in space, real time texture-mapped and light sourced objects, blurred lenses and plenty more. The various sections are tied together well to form a continuous trip through the abstract 3D world. All very nice and escapist.



Available from: Mon PD, 9 Lon-y-Wylan, Llanfairpwll, Ynys-Mon, Gwynedd, LL61 5JU. £2 plus 50p P+P.



83 %

Braincell AGA demo

"Look what I've done to my last braincell ..." boasts the intro to this feast of psychedelia. If you like your visuals all slippery and wobbly, you'll wet yourself when you see some of the tunnels and plasma sequences here. You'll have seen most of this stuff before in tamer forms, but don't let that put you off. The soundtrack's too! A must for all space cadets.

Available from: Mon PD, 9 Lon-y-Wylan, Llanfairpwll, Ynys-Mon, Gwynedd, LL61 5JU. £1 plus 50p P+P.



85 %

Batman ECS demo

It's rare to find a demo these days that doesn't need to use an AGA Amiga, so it's good to see something worthwhile for ECS machines. It starts with an impressive Batman animation that combines hand drawn artwork with vector graphics before moving into more standard demo territory with vectors and texture mapped cubes. Meanwhile, back at the Bat theme, we're treated to a spinnny vector rendition of the Dark Knight and a return to the cartoon animation for the finale. The spooky jungle techno soundtrack also deserves a mention. Recommended to ECS and AGA owners alike.



Available from: Pixel Digital PD, Unit 6, Laurel Business Centre, 15 Laurel Road, Liverpool 7. Tel: 0151 259 4017.



89%

Assembly 95 Intros demo collection

There are 18 mini demos in all on this disk, all of which were entries in the Assembly 95 40K intro competition. I'm a big fan of these intros, especially as they mainly concentrate on weird colour effects instead of wasting your day loading pre-rendered sequences. You can also launch them from your Workbench and quit back to the system if you fancy taking a breather from your current application. Fire effects are a particularly big favourite with this collection, along with more light-sourced objects and various copper contortions. Good fun.



Available from: Pixel Digital PD, Unit 6, Laurel Business Centre, 15 Laurel Road, Liverpool 7. Tel: 0151 259 4017.



88%

Disk Magazines

The Word issue 7



Popular with its neat interface and numerous varied articles, the editorial intro says that Amiga Technologies will be shipping an 'A1200 xl' - more powerful than an A4000/030, all for under £300! (Not true-Ed). Despite that, other articles are worth a look, especially non-Amiga topics.

Available from: Sadeness PD, 13 Russel Terrace, Mundesley, Norfolk. NR 11 8LJ. Tel: 01263 722169. Price: £2 including P+P.

79%

Gedan Issue 3



Gedan hails from Poland, and offers you the choice of either Polish or English text for the articles. Most of them are scene-related and generally suffer in the translation to English, but it's recommended for anyone looking for a Polish view of the scene.

Available from: Mon PD, 9 Lon-y-Wylan, Llanfairpwll, Ynys-Mon, Gwynedd, LL61 5JU. £1 plus 50p

69%

Slammin issue 1

All of you grapple-fans out there should take note! *Slammin* is the first issue of what may prove to be the only disk mag devoted to that noble art of wrestling. Unfortunately, the editor doesn't get WCW wrestling on his TV, so the coverage is limited to WWF. Although the standard of writing certainly isn't top notch, at least in English that is, the articles are still entertaining - particularly the gossip, which tells tales of rival wrestlers pooting in each other's kit and lots of other bitchy stories, interspersed with regular "...and this is the truth" comments, just in case you thought it was all made up (perish the thought). Some pictures would help liven it up, especially as the disk is only half full. A shareware version is also available, but the one reviewed here is the full version. So as Mr Crabtree used to say, "Have a good week, 'till next week".

Available from: David Thomas, 4 Cefn Rhos, Tredegar, Gwent NP23 6PA. Price: £2.50 including P+P (full version).

55%

PD Utilities

This month
Mat Bettinson
picks the best
PD he could
find on the
Aminet. What's
more, it's all
included on the
Cover CD.

U Paint 1.80 Paint program

A PD paint package. Sounds good to me, let's fire it up. Oh dear, the first thing I see is a custom drawn attempt at a requester asking me if I want 'Hi-Res' or 'Lo-Res'. This is not a good sign. Selecting Hi-Res, my power LED flashes madly indicating that we are experiencing major Enforcer hits. (A debugging program for catching illegal memory accesses). Not a good sign. When the package appears, it's incredibly basic. You are mostly consigned to using the line tool. Thankfully the crash that resulted later brought an end to UPaint's reign of B-Movie terror. Oh yes, it's on the CD if you want a laugh.

Available from: Snappy PD, 80 Ottawa Road, Tilbury, Essex RM18 7RH
Tel: 01375 850365, Price: .65p + 70p P&P, CD-ROM path:
Magazine/PD_Utills/U_Paint.LHA, Aminet path: N/A



12 %

Executive 1.1 Multitasking enhancer

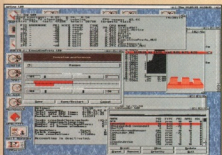
Forgive me if I rave about this but it's causing quite a stir in the Amiga community. Why? Because it's brought the Amiga's multitasking capabilities right up to date.

The Amiga's standard 'pre-emptive prioritised round robin' system has always been able to multitask comprehensively but was lacking if you wanted a lot of programs running simultaneously. *Executive* steps in with a full set of real task schedulers to give your Amiga multitasking technically the equal and more of the latest developments on other platforms.

So what does this mean? Envisage the situation where you have a lot of programs running at the same time. Suddenly you start processing an Image in some package. As the Image processor runs at an equal task priority as the other tasks on your Amiga, it will freeze your machine as it eats up all the CPU 'time'. You could fix this by lowering the task priority, but this isn't practical when running a lot of tasks. *Executive*'s solution is to reorder all the tasks' priorities after measuring precisely how much CPU 'time' they are eating for themselves.

This unregistered version has only one type of scheduler included which is still superior to the Amiga's native capability. The registered version includes more and small tools for acting on tasks and displaying the CPU time that each task consumes. The extensive preferences program supplied comes in an MUI and non-MUI version allowing you to explicitly state what kind of multitasking certain tasks will get if their needs are something special. It's made my system more productive and with the addition of the key file costing only £5 from the author, it becomes

the Shareware OS enhancement of 1995. Totally essential!
Available from:
Roberta Smith DTP,
190 Falloden Way,
Hampstead Garden
Suburb, London
NW11 6JE. Tel: 0181-
455-1626
Disk No: UT701
Price: .90p + 50p
p&p



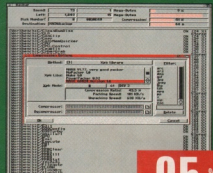
Get it on our CD-ROM, path: Magazine/PD_Utills/Executive.lha
Aminet path: misc/Executive.lha

98 %

ABackup 5.0 Hard drive backup program

Once when my hard drive crashed and I lost all my hand made, ray-traced objects, I could never face starting again. Don't let this happen to you kids, back up your data with *ABackup*. This long-standing Shareware backup program is now at version 5.0 and it's faster, safer and more powerful. Multi user-FileSystem and DiskSpare device are directly supported as is a plethora of compression methods including the highly useful XPK system. What's more, there's no Shareware cripples at all. Just a little requester that asks for \$20 if you use it frequently. Small price to pay for a back-up program that's in many ways more professional and feature laden than the various commercial packages about.

Available from: 17-Bit Software, 1st Floor Offices, 2/8 Market Street Wakefield, West Yorkshire WF1 1DH. Tel: 01924-366982 Disk No: 3896 Price: £1.00 + 50p P&P
CD-ROM path: Magazine/PD_Utills/ABackup500.lha
Aminet path: disk/backup/ABackup500.lha



95 %

HippoPlayer 2.11 Module Player

HippoPlayer is a classic Shareware mod player that's been updated so often that you wonder if there's much more they can do to it. It's small, fast and has most of the features I have ever needed such as the ability to play crunched XPkEd modules and even modules out of LHA archives. Random shuffle and PSM3 digitally mixed playback are also on offer. Surround, Stereo (with channel mix settings), Mono, 'Real' Surround and 14-bit stereo are all there for some neat effects. Various built-in scopes are also included. These features are all built into a simple prefs page and the whole player itself can be iconified into a toolbar or left open with CD player like gadgets in a small window of the previous/next modules. Unlike the competition it doesn't suffer the features by being a largish 500K program just for a module player. Superb and definitely my favourite in this field. Yet another essential.



Available from: Pixel Digital PD, Unit 6, Laurel Business Centre, 15 Laurel Road, Liverpool 7.
Tel: 0151-259-4017
Price: £1.00 + 50p P&P
CD-ROM path: Magazine/PD_Utills/hip211.lha
Aminet path: mus/play/hip211.lha

92 %

Vark CLI Utills 8 CLI Utilities compilation

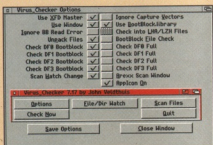
Not having seen the 'Vark' series from 1 to 7, I can't comment on the quality of previous incarnations but if the standard of volume eight is anything to go by, it's not too bad. Firstly all the docs are present and none of the file-names have been turned into meaningless numbers so if there's something useful you can easily copy it onto your HD. There are, amongst others, bootblock tools, module players/rippers, led/fitter switchers and kickstart file analysers. There is the usual oddball mix which should be of use to everyone and certainly invaluable if you don't have much of a collection of these kind of utilities. Perhaps picking up the 'Vark' series to get such a collection might be a good idea. This is what CD-ROM drives were invented for.



Available from: Pixel Digital PD, Unit 6, Laurel Business Centre, 15 Laurel Road, Liverpool 7.
Tel: 0151-259-4017
Price: £1.00 + 50p P&P
CD-ROM path: Magazine/PD_Utills/vark8.dms
Aminet path: N/A

77 %

Virus Checker 7.17 Anti-Virus checker/exterminator



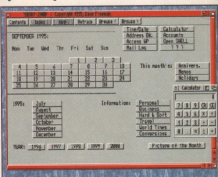
A classic long-running and regularly updated Shareware program, *Virus Checker* is famous and author, John Velthuis regularly updates it using new virus sent to him from around the world. VC's user interface is very simple, most of the time remaining confined to a toolbar silently checking inserted disks and watching certain files for modification like your startup-sequence etc. If you get nothing else out of this month's ripper round-up, use the version on the cover mounted CD-ROM. It's the best.

Available from: KT's PD, 75 The Drive, Rochford, Essex SS4 1QQ.
Tel: 01702-542434; Disk No: U820
Price: 90p + 75p P&P
CD-ROM path:azine/PD_Utills/VChk717.lha
Aminet path:util/virus/VChk717.lha

90 %

Diary 2000 Personal Diary Utility

Coming to you all the way from Pattaya City, Thailand, this is just a simple diary utility which allows you to build up a diary for the next five years. What makes it interesting is that the author has no programming experience at all and has constructed the entire package out of modular AmigaGuide scripts. This is certainly quite an astounding feat and even if it's not useful as a diary organiser it's certainly a brilliant tutorial/example of what can be done with the Amiga's unique AmigaGuide script language. The diary can access other utilities such as multiview and the calculator making it much more than a non interactive script. In fact the public domain text editor QED is included to enter in your own details. Recommended for those interested in AmigaGuide and how to make the most of it for documentation or wider uses such as demonstrated by *Diary 2000*.



Available from: Software 2000, 9 Wills Street, Lozells, Birmingham, B19 1BP.
Tel: 01827-68496
Price: 99p + 70p P&P
CD-ROM path: Magazine/PD_Utills/Diary2000.dms
Aminet path: N/A

84 %

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Gallery

Pixel Picassos and pop art plagiarists abound in this month's look at the colourful world of Amiga art.

Elements



by Sucha Singh,
Middlesborough.

Making An Exhibition of ...



Paul Hamilton whose work appeared in Art Gallery August '95 (A quiet night in) will be holding his first exhibition of his Amiga artwork on 4-28 October at the Reflections Gallery, Exeter and Devon Arts Centre, Gandy Street, Exeter. Admission is free so you've no excuse for not attending.

Soul Seeker



by Daniel Brunkert, Sweden.

Ice-Cream



by Hisham Khalifa,
Bahrain

If you think you can do better than any of the pictures that appear on these pages, send your artwork in to Art Gallery, EMAP Images, Priory Court, 30-32 Farringdon Lane, London EC1R 3AU. Or you can Email Lisa Collins at: gallery@cu-amiga.demon.co.uk

AMIGA

workshop

BUYERS GUIDE 100 ●

Want to know what constitutes a 'sound' investment when buying a sampler? Look no further than this month's buyers guide.

OCTAMED 5.04 102 ●

Part 2 of Ed Wiles' OctaMED tutorial reveals the time-saving delight known as the Sample List, along with some explanation of the instrument parameters.

COMMS 104 ●

Get a 'net social life with the amazing Internet Relay Chat system. Mat Battinson is here to talk you through it.

NET GOD 106 ●

What about more on-line games for the Amiga then? Our 'net master calls for more combat over the phone lines.

IMAGE FX 108 ●

Sharks in San Francisco bay and F 18 fighter planes ripping through the sound barrier - Tony Horgan shows the way.

PAGESTREAM 110 ●

Making your own business stationary is explored by Larry Hickmott this month as he makes October's cover disk work for you. If you haven't got one, get a back issue!

GRAPHICS MASTERCLASS - PERSONAL PAINT 113 ●

Personal Paint is stacked with special effects and image filters. Peter Lee explains how to use these to enhance your illustrations beyond all recognition.

BACK ISSUES/SUBS 110 ●

If you want any of the cover disks mentioned in our tutorials then our back issues dept. may be able to help. But hey! why not save £17 and take out a subscription.

FAQ 115

Null modem connection is the subject of this month's FAQ, following considerable interest in last month's null modem games feature.

Q&A MASTERCLASS 120

Using *Arex* for multimedia multitasking is the subject of John Kennedy's column this month. Windows95? As if!

Q+A 122

Tony and Mat emerge once again from a dark, smoky room with all the answers you need to help your Amiga run smoothly.

BACKCHAT 126

Readers letters continue to provide the best insight into what's happening on the Amiga scene.

POINTS OF VIEW 130

The man they call Andrew Braybrook, of *Fire and Ice* and more recently *ViroCop* fame tells us what he thinks of software publishers lack of CD32 support.



Sound samplers are the subject of this month's comprehensive buyers guide.

Our cover disk tutorials continue apace with OctaMED, Image FX and PageStream and Peter Lee gets on with his tutorial on Personal Paint, the latest version of which is bundled with the new Amiga A1200 and A4000T. Next month his tutorial will look at that version too. All this plus Comms, PD and Q&A. Read on ...



Regulars

Buyers Guide

With a sound sampler you can grab any noise from the real world, store it in your Amiga, manipulate it and create wonderful music. Prices range from £30 to over £1,000, so which is right for you? Take your pick from this round-up of all current Amiga sound samplers.

MegaloSound

Supplier: HiSoft
Tel: 01525 710 181
Price: £29.95

MegaloSound is CU Amiga's favourite budget sampler. It plugs into the parallel port and offers simultaneous stereo sampling. It's quite small and has a 'gain' control for adjusting the sensitivity of the cartridge to the incoming sound, making it easier to record with a good sound to noise ratio.

Software-wise, it has a customised user interface with obscurely marked graphic icons and text labelled buttons. Even so, it rates highly thanks to its many editing functions and effects including: lowpass filter, highpass filter, centre bias, brighten, smooth, phaser, bass boost, treble boost, flange, distort, metallic, X fade, portamento, repitch, chorus, echo, reverb, pipe, modulate, tremolo, pan, vibrato, Y flip and resample. You also get plenty of handy functions for finding smooth loop points. All effects can be used to alter samples in memory, and many can also be used in realtime on sounds coming through the sampler cartridge.

DSS 8 Plus

Supplier: Power Computing
Tel: 01234 273 000
Price: £55

DSS 8 Plus was developed by the highly respected GVP and is now sold through Power Computing. From the outside, the most striking thing about the DSS 8 Plus is the clear plastic case on the sampler unit, but that's just for showing off to your mates. The hardware is similar to most other 8-bit samplers, plugging into the parallel port and offering two phono input sockets.

The software is quite flash affair,

Sound Samplers

Sunrise AD516

Supplier: Premier Vision
Tel: 0171 721 7050
Price: £1173

The Sunrise AD516 hard disk 16-bit audio sampler is strictly for professionals only – as dictated by its price (£999 ex VAT) if nothing else. It comes in the form of a Zorro card for big box Amigas, so it's not compatible with the A1200.

However, it is compatible with the powerful MIDI sequence Bars and Pipes, as well as the PAR card (a realtime digital video recorder) and the Broadcaster Elite system. It has been designed for professional audio visual work, rather than as a sampler for musical applications. Along with its excellent software, it offers a timecode support, eight track 16-bit audio output, realtime effects processing from its on-board DSP chip, and has enough power to enable soundtracks to be synchronised precisely with video.

Unless you're intent on producing soundtracks for videos or some similar application, you would be better off looking elsewhere, as it prefers to work in a linear fashion, rather than as a multi-timbral instrument. For those whose budget will stretch, it is undoubtedly a luxury that will be welcomed with open ears.

featuring a neat interface and an in-built tracker for knocking up tunes. One of the unique options available in DSS 8 Plus is the special high frequency filter. This removes high frequencies (such as hiss and cassette tape noise) before the sample is recorded into memory, and leads to very clean samples when dealing with bass sounds, far superior to filtering after sampling.

For the more experimental users, the hardware can be controlled via AReXX from within other programs. It doesn't have the biggest range of special effects, but for good quality basic sampling it's hard to beat.

Aura

Supplier: HiSoft
Tel: 01525 710 181
Price: £39.99

If you demand more than 8-bit sound quality from your Amiga, you could do worse than take a look at Aura. It's only available for the A600 and A1200 because it makes use of the PCMCIA ports featured exclusively on these machines.

The hardware sports three pairs of phono sockets: one pair for input, one for output, and another input to be connected to the Amiga's standard audio sockets. This is so you can have the cartridge connected to the Amiga and your speakers without having to switch wires around when using other programs. Sound is sampled and played back through the cartridge at 12-bit resolution, but all processing within the software is carried out in 16-bits for cleaner results.

The good news is that OctaMED 5.04 and above has direct support for Aura, giving you the option to replace one of the four 8-bit channels with a 12-bit Aura channel. The Aura software is pretty good too, with lots of neat effects. The realtime effects are particularly useful – just about clear enough to be used in professional music production. You can even double-up these effects, simultaneously using a phaser and reverb routine for example. Thanks to the support of OctaMED, it is now of real use to musicians, rather than just a bit of a novelty.



TechnoSound Turbo II Pro

Supplier: New Dimensions

Tel: 01291 690 933

Price: £40 (8-bit cartridge) £40 (12-bit add on)

TechnoSound is a well established favourite with Amiga musicians. It seems to have reached this position by simply refusing to go away. Every now and again it gets an update with new features (hence the long-winded title), but the general operating methods have remained faithful to the original version. It's now available as an 8-bit sampler or a 12-bit version.

Unfortunately the 12-bit sampler doesn't upgrade your standard channels to 12-bits. Instead it allows you to sample, manipulate and replay sound at 12-bit resolution, but only from the TechnoSound software.

This is another system that uses software with a customised interface. Unlike the MegaloSound software, the CU Amiga team find the TechnoSound interface is rather awkward and fiddly, but that really is a personal preference, and you may well feel differently about it.

Apart from the standard editing functions, the available effects include: clean up, X flip, Y flip, delay, multiple echo, phase shift, amplify, soften, octave up or down, note up or down, pitch up or down, compress, maximise, fade in and fade out. It also includes a host of voice-changing effects, direct to hard disk recording, comprehensive filtering and a built-in tracker section. If you can get over its quirks, TechnoSound Turbo II Pro is worth a look. Check out the full review on page 84 this issue for more details.

Toccata

Supplier: White Knight Technology

Tel: 01920 822 321

Price: £289

Like the Sunrize AD512, the Toccata is a Zorro card for big box Amigas but it's substantially cheaper. It offers 4 channels of 16-bit audio, which it likes to record and play back direct from a hard drive. Its host software, Samplitude Pro, costs an additional £115.

Unlike the AD516, there's no DSP chip for realtime effects, and time-code isn't supported. However, it can be linked up to the VLab Motion realtime JPEG video card to provide soundtracks for your digital video productions. Good news for musicians is that it can be used directly with OctaMED from version 5.04 and above. Anyone looking for a cost-effective 16-bit sound card expansion would do well to consider the Toccata.



Akai S01

Supplier: Akai UK

Tel: 0181 897 6388

Price: £799

This isn't actually an Amiga peripheral but it's worth considering if you're after a 16-bit sampler. For musicians, it has plenty of advantages over the Amiga-specific 16-bit samplers.

It comes with 2Mb of RAM (15.6 seconds worth of sampling time), and can play up to eight voices at once. Although it only has a mono output, the 16-bit sound quality is excellent, with a fixed record rate of 32 KHz. Samples are saved out to the S01's internal floppy drive, which unfortunately is not Amiga DOS or MS-DOS compatible.

It's a standard MIDI instrument, so it can be driven from any MIDI sequencer such as Music X, Bars and Pipes, OctaMED or KCS. With any luck, prices of outboard MIDI samplers will come down soon. Even so, the S01 is the cheapest of its kind, and as such is recommended to musicians who need more sample power.



TechnoSound Turbo 2 Pro introduces 12-bit sampling for all Amigas.

Product	Price	Compatibility	Hardware type	Resolution
MegaloSound	£29.95	All Amigas	Parallel port cartridge	8-bit
TechnoSound Turbo 2 Pro	£40 + £40	All Amigas	Parallel port cartridge	8/12-bit
DSS 8 Plus	£55	All Amigas	Parallel port cartridge	8-bit
Aura	£99.99	A1200	PCMCIA cartridge	12/16-bit
Sunrize AD516	£1173	Big box Amigas	Zorro card	16-bit
Toccata	£299	Big box Amigas	Zorro card	16-bit
Akai S01	£799	All Amigas/MIDI	MIDI instrument	16-bit

OctaMED 5.04

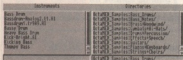
There's a whole orchestra of instruments in OctaMED just waiting to be tapped into. All you have to know is where they are and how to use them and that's where we come in ...

In last month's effect-based tutorial, we used the same instrument, the drum beat, throughout. However, it's very unlikely that you'll spend all your OctaMED days using just the one instrument; eventually you'll acquire hundreds. This month we'll learn how to keep track of them all, as we look at each instrument's unique settings.

The sample list

Whether you're running from a hard drive or from floppies, the best way to keep track of all your samples is to use the Sample List feature. This cuts out plenty of disk shuffling and directory reading that would otherwise be necessary each time you wanted to locate and load a new sample. Creating the list is easy: you just select your sample directories from a file requester and OctaMED reads in the names of all the files. You can then select samples from this list, and OctaMED will know exactly where to find them (asking you to insert the relevant floppy disks if necessary). This is how it's done ...

Load OctaMED and open the Sample List Editor window (Display menu). On one side you'll see the list of sample directories, on the other side the samples that are in these directories. There was a sample on last month's CU cover disk (you did buy it, didn't you?), so let's add it to the list.



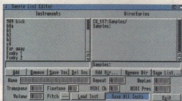
Firstly, we'll remove all the existing directories in the list because we don't actually have any of them. So click Remove Dir (bottom-right) until the list is empty. Next, insert last month's cover disk, then click Add Dir (bottom right). In the file requester, click Volumes and CU_117 then click Samples and the OK button. Wahey! The directory name and AcGuitar sample should have appeared in the list (don't worry, it gets better than this). If you have any more sample directories, do feel free to add them. If there's a mixture of samples and other files in any directory, add the directory anyway and remove the non-

sample files by clicking on their names and clicking Remove (bottom-left) one by one.

A right rip off

Remember the two demo songs on the OctaMED program disk? Using the Sample List Editor, you can 'rip' (extract) the samples from these songs. So let's do it. Have a completely empty disk called Samples (or something apt) at the ready. Then add it to the list by clicking Add Dir again (and click Volumes then Samples, or whatever you named your disk). Answer After Current in the requester.

Next, load the Drum Solo song into memory (it's in the Modules directory of OctaMED disk 2). Finally, open the Sample List Editor if necessary, click on the Samples: directory in the right-hand list, then click the Save All Insts button (bottom-right). Wait for a bit and the song's entire sample collection will be

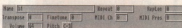


saved to your disk. Do the same again for the Jungalistic song and you should have a directory like the one in the screenshot.

Instrument settings

Each sample has a collection of settings which affect the way that it's played. These settings are shown in the boxes below the lists (from Repeat down to Pitch). Click on the first sample in the list ('909 kick'), and you'll see that it has a RePlen value of 800, for example.

For now, we'll concentrate on the Pitch setting and change it for three percussion samples. Click on the 'b1' sample, then change its 'default pitch' to C-3 by holding the



left mouse button on the box beside Pitch (currently containing —) and pressing I (the C-3 key). The box should show C-3 if every-

thing's gone smoothly. Now in the same way, change the 'h5' sample's default pitch to E-3 (the P key). You'll need to drag the instrument list's black scroll bar to reveal 'h5'. Done? Finally, set the default pitch of 's0d' to D-3 (key O). When you've finished, save the sample list by clicking Save List (bottom-right) and click OK in the requester.

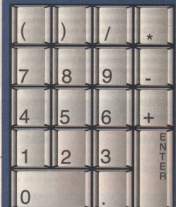
Loading made easy

You can now load samples directly from the Sample List, without having to read and disk directories.

Close the Sample List window and clear the current song (from the Project menu). You can access the Sample List by clicking the small button marked in red in the screenshot here. Click the Samples: directory, then click on 'b1' and it will be loaded. Play it to make sure. Select instrument 02 (use the Next Inst/Free buttons if you like), then load 'h5' (use the scroll bar). Finally, load 's0d' as instrument 03, and close the window.

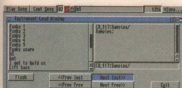
So you see, the sample list is a pretty neat effort-saver. And remember the instrument

The Numeric Keypad



Keys...

- 0-9: Selects instrument 0 - 9.
- \leftarrow : Toggles first instrument digit (e.g. 05 -> 15).
- \leftarrow , \rightarrow : Next/previous instrument.
- \leftarrow , \rightarrow : Decrease/increase current instrument's volume by one.
- \leftarrow : Selects last used instrument.
- \leftarrow : Picks instrument number nearest cursor.
- Enter: Selects an alphabetical instrument (press Enter then key A to V).



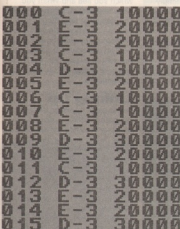
settings (Pitch, ReplEn etc.)? They've been loaded too. Open the Instrument Parameters window - 'parameters' just means settings - by clicking Inst Params (top-middle of screen), and note the Default Pitch setting at the very bottom. If instrument 03 is selected, it's D-3 - just how we set it.

Default pitch

What is this default pitch anyway? Well, percussion sounds are generally played back at one pitch, unlike instrument sounds. So instead of remembering the best-sounding pitch of every percussion sound, why not let *OctaMED* remember instead? Hence the default pitch. You play the sound at its default pitch by pressing the F key. So when constructing a beat out of several percussion samples, you need only use the F key to enter every sound, rather than thinking, "Right, I key for bass drum, P for hi-hat..." Oh, the convenience.

So switch Edit mode on and fashion a drum beat using instruments 01 to 03 in lines 000 - 015 of track 0. And you're only allowed to use the F key! And for even easier entering, try using the numeric keypad (if your Amiga sports one) - use keys 1, 2 and 3 to select instruments 01 to 03. See the panel for more details. If you're stuck for ideas, enter these instruments in sequence:

```
01 02 02 01 03 02 01 01 02 03 02 01 03 02
02 03
```



Ready? The first 16 lines should be percussion-filled. OK, here's a tip of the month for repeating these 16 lines through the block. Select Track menu -> Copy in order to copy the track to the copy buffer. Now press F7 to move to line 016, and select Edit menu -

A Sound Ticking Off

'Ticks' are *OctaMED*'s basic unit of time, much like the seconds of a clock. In fact, you can think of Tracker editor blocks as hours, lines as minutes, and then ticks as seconds.

It's possible to play one Tracker editor line every tick, but usually lines are played on every sixth tick. This is controlled by the smaller tempo slider (top-right of main screen) which normally shows 06. It's best to leave this factory setting alone and adjust the longer slider, which controls how long one tick lasts. So the length of ticks is variable, and thus ends the analogy with seconds, having of course a fixed length. (I've never understood how the length one second lasts is defined. How can you store a length of time? Oh well.)

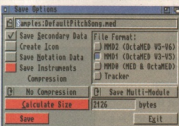


Ticks are largely ignorable, but they're important in a few cases. Hold specifies its time-length in ticks, so a value of 4 is two ticks less than one line (using the six-ticks-per-line standard). And while notes are played on the first tick of each line, effects such as pitch sliding are handled on every tick. Take player command OD, which changes a note's volume by a certain amount. With level 01, the volume decreases by one level per tick. So with six ticks per line, this translates to six levels per line.

> Paste Range. This will repeat the part you just copied. Press F8 and select Paste Range again, and similarly with F9. We'll go into more detail about copying in a forthcoming tutorial.

Play the block and have a little dance. OK. Other than loading instruments, the other sample list gendens involves disk space, or the copious saving thereof. Usually *OctaMED* saves a song together with the instruments it uses in one big file, but alternatively it can save only the instrument names and the note data. When you later reload the song, *OctaMED* loads the instruments directly from your sample disks using the sample list to locate them.

Right, open the Save Options window (Project menu) and select some sort of filename. Now click Calculate Size (bottom-left). It will probably be around 9K or so. Switch off the Save Instruments tick box, and check the size again. It will now be about 2K, which may not seem a big difference, as there are relatively few samples in this song, but if you use lots of biggies, the saving will be

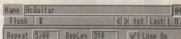


enormous. Click Save to save the song, then clear the entire song and reload it to watch *OctaMED*'s automatic-loading in all its glory.

Useful parameters

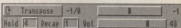
The Instrument Parameters window (reopen it using Inst Params) contains many more useful settings. The top box is the instrument's name and the slider beneath this is used to cycle through all the available instruments, along with the buttons below the slider (1st,

Last and LU). Flush deletes the instrument from memory.



Repeat, ReplEn and Loop On set the sample's 'loop': rather than dying away, the sample will be sustained until you stop it. This is due to a particular part of the sample being repeated over and over again or 'looped'. The *AcGuitar* sample, for example, has a loop. Load it in using the sample list, then open the Sample Editor window (Display menu). The black squiggly line is the sample in picture form. See the two 'loop pointers' on the right of the sample picture? This is the repeated section. Play the sample and you'll see a white marker flicker over the repeated section when it's reached. More on this fascinating window next month!

With Transpose you can make sure your instruments are in tune with each other. Try it out on a melodic instrument like *AcGuitar*; use the slider to adjust the pitch in whole semitones (for example, a value of -1 makes F-2s sound like E-2s). Click the Transpose cycle gadget to tune in finer steps. Hold and Decay control a note's exact length and subsequent fade. For a quick demo, set



AcGuitar's hold/decay to 4 and 1, enter a note in the Tracker editor and play the block. The Hold duration is given in 'ticks' (see box-out), the Decay in goodness-knows-what but values above 10 are pointless, although 0 is possible. Use player command 08 with a note to override the hold/decay (first level digit is decay, second is hold).

The Volume slider is a popular one, trying adjusting the volumes of the three percussion samples we've used. Player command 0C overrides the Vol value. Just the MIDI gadgets left, which we'll cover later. ■

Ed Wiles

Wired World

PART 4 Lonely on the 'net? This month we get social on the Internet Relay Chat.

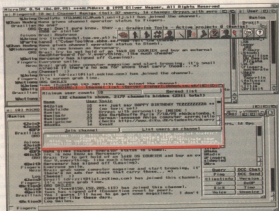
The Internet Relay Chat or IRC is a neat system for conducting realtime conversations with multiple participants across the Internet. Comments from other people in the conversation appear on your screen as they are typed, each one labelled by name so that you know who is saying what. You join in by typing comments from your keyboard, which appear on the screens of the other users.

Setting up is fairly easy, and once you get into it, it's so entertaining that you could see your phone bill rocketing! If you haven't done so already, sign up your Point of Presence (PoP) phone number with BT as a premier line, and you'll get 15-20% off calls on that number.

We'll presume that you already have a working AmITCP set-up and a dial-up SLIP account. If not, you can catch up on previous

Wired World instalments by ordering the relevant back issues. See the contacts panel at the front of the magazine for details.

If you have been following the series, you should already have the software required to access the IRC right now. Concerning the software you'll need, there are two options. The first is to use a piece of telnet software, such as NapsaTerm which comes as part of Demon Internet's installer software. However, NapsaTerm is rather shoddy. There are better clients available but the real solution is to use something known as the 'telser' device. This allows you to telnet using a real terminal package (such as NComm or Term) with the advantage of the extra features available from these packages. If you have the CD edition of this month's magazine, you can find the telser device on the cover CD in the



▲ The two competing IRC clients for the Amiga. On the top is the long standing 'Ungreiv' complete with icon button bank. Below is the newcomer 'NapsaTerm' shown with its handy channel list window open.

directory 'Magazine/Wired World'. Have a read of the documentation provided with the package. Once installed, you simply change the 'serial device' in your terminal package to 'telser.device'. Now you can telnet from your term package by typing 'ATDT dismayl.demon.co.uk 6666' instead of a phone number.

Telnetting is just like using a

terminal package in that all that's involved is a simple interaction with text. Text is sent to you which you see and when you type, text is sent to the other end. The beauty of telnetting is that you can communicate with another system anywhere in the world, be it an IRC server or a BBS, for the cost of a local call. You'll find plenty of Amiga BBSes that you can telnet to.

Linking up

In this case, however, we want to get onto the IRC. To do this, link up as you would normally then enter 'Telnet dismayl.demon.co.uk 6666'. This means you want to telnet to Demon's IRC server on port 6666 which is used for telnet access. Now you'll be prompted for some details about your terminal. Enter VT200 here and then you'll be prompted for your 'Nick'. This is the nickname by which you are known on the IRC. It's a good idea to pick one and remain consistent so that people know who you are. It's possible that someone else might be using the name that you pick, whether you've used it before or not, in

BBSes you can Telnet to

Telnet Address	BBS Name	Location
bbs.mxi.com	Anything Goes	Hawaii
199.234.150.15	The Flying Toaster	Pittsburg, USA
chat.multiversum.com	Freepost Cafe	Hamburg, Germany
205.149.166.40	Gnomes Guest House	San Jose, USA
hotcity.com	Hotcity	San Jose, USA
incubus.franken.de	Incubus	Wuerzburg, Germany
tkn.com	The Kobayashi Alternative	Maine, USA
laserbase.com	Laserbase Communications	Austin, USA
olib.org	OpenLibrary	Kansas, USA
obscurity.pd.mcs.net	Principle of Obscurity	Chicago, USA
portal.com	Portal	USA
proton.com	Proton Palace Professional	Canada
198.17.249.33	The Stormfront	Spokane, USA
tfbbs.tvinet.com	TerraFirma	Vancouver, Canada

Note: Don't enter a port number for all these sites.
! = Amiga BBSes (many have Amiga material anyway)



▲ The #Amiga IRC channel has attained such levels of fame that it even possesses its very own WWW home page maintained by 'TobyLyn'. There's details on most of the channels regulars in case you're curious.

which case you'll be told to choose another nickname. Either way, you can still use your original choice, but just add an underscore (_) or similar to the end of the name, then the people in the channel will still know who you are.

Once you've logged in, you'll need to join a channel. Type '/JOIN #Amiga' and you'll log into an IRC channel all about the Amiga. This channel usually has at least 30 people on it and via telnet you'll be sent a burst of names which are the nicknames of all the people on the channel.

Their comments will scroll by on the screen with the 'nick' on the left-hand side indicating who said what. If you type something, your words will go out to all the other people who will see your 'nick' on the left and your words on the right. You are now on the IRC! To leave that channel type '/LEAVE'. You might like to try a general chat channel like 'GB'. Try '/JOIN GB'.

Homegrown

While you can telnet to the IRC in seconds, there is a better but slightly more complex way of getting onto the IRC. This involves running your own dedicated IRC client, such as Grapevine. This is a package that will interface with the protocols used in the IRC networks and so provide a more intuitive interface. In practice it blows the bananas off telnetting and I highly recommend you give it a shot.



▲ #Amiga's 'Lauran' which goes to prove that the IRC isn't the sole domain of men.

If you followed last month's Wired World you should already have Grapevine. Otherwise you can find it on the CD-ROM from the CD issue of this magazine, in the aminet/comm/net directory. Follow these steps to install it on your system.

1. Extract the archive file to your chosen destination (usually your hard drive) using the extractor utility on the CD.
2. Open a Shell window and use the cd command to move into the directory to which the archive was just extracted.
3. Type `dir`
- hit Return and you'll get a list of the directory, which should include a file called DCC (if not you're in the wrong place).
4. Enter `LHA x DCC-Send-1.12.1.lha` and hit Return. This should extract a load of files from that mini archive and put them into the DCC directory.
5. Now 'cd' to the DCC directory

and rename the three files with the .AS225 filename extensions to delete those extensions, i.e. rename `DCC.ChatAS225` to `DCC.Chat` and do the same for the remaining two. Grapevine is now fully installed. Just link up and double click on the GV icon.

Heard it through the grapevine

When you start Grapevine, the chances are that it will attempt to connect to 'irc.colorado.edu'. This isn't ideal. There's no need to connect to the States to get on the IRC so enter the 'Settings/network' menu and substitute 'irc.colorado.edu' with 'dismay.demon.co.uk' or another server like 'stork.doc.ic.ac.uk' which is a good choice if you're not a Demon subscriber. There's also 'veng.abdn.ac.uk' in Aberdeen and 'coanwood.ncl.ac.uk' in Newcastle. Leave the port number on 6667 which is the relevant port for all of these servers. While you're here, enter your names in the other boxes. Now enter the 'Settings/user' menu and enter your first choice for a 'Nick'. Now, select 'Server/Connect...'. Enter the IRC server you put in 'Settings/network' earlier and Grapevine should spring into life. You'll see it automatically proceed through the registration process.

Now it's time for a '/JOIN' command. Try '#Amiga' for now. If all went well, you'll see the user

box appear and you'll land right in the middle of the #Amiga IRC channel. Refer to the documentation in the Grapevine archive for further information. You'll find it to be an item of software the Amiga can be proud of.

There's a new IRC client that appeared in the last few weeks, for those looking for an alternative to Grapevine. It's called 'AmIRC' and it uses Magic User Interface to build the GUI, which is either good or bad depending on your opinion of MUI. Whilst only in the Alpha stage of development, I thought it was impressive enough to put on this month's Cover CD. In order to install, just extract the archive and run the main program called AMIRC. That's it. Everything is built-in like DCC and the like. It also has a built-in feature to download the latest version which is a good thing because I can guarantee there'll be a new version out by the time you read this. The choice between the two fantastic IRC clients comes down to personal choice. I urge you to have a look at both. People with slower Amigas may want to use Grapevine but alternatively, AmIRC has some excellent features like the channel list window etc.

In case you want to chat, you can find me most often in the #Amiga or #AmigaCafe channel using the 'nick' of Fingers. Hope to see you there soon. ■

Mat Bettinson

Amiga IRC Channels

On Effnet:

The network that started from the Electronic Frontier Foundation server in the States. It's by far the biggest and most diverse but it does suffer the IRC bane of 'netsplits', where Servers lose the connection between themselves over the 'net and 'lag', where the time taken for messages to get around the globe increases drastically. This does little to discourage the users though.

#Amiga:

This channel is one of the biggest on the IRC network EFFnet (the most common IRC network in use). It has a resident robot ('bot') known as 'Mama' which does all sorts of wonderful things like searching the Aminet archives for you and even sending you files directly. When in this channel enter '/MSG mama help' and she'll oblige you with a quick tutorial on what she's about. This channel is often criticised for having some elitist local 'Ops' or Channel Operators that terrorise new users, so beware. Never announce you are a new IRC user publicly. Use the private message system by typing '/MSG <nick> <text>'. E.g. If I'm there, say hello by typing '/MSG Fingers Hello!'

#Amigascore

This channel is more to do with the Amiga scene than the Amiga computer as such. It tends to be full of Demo fans and programmers. Drop in a check out #Amiga's little brother. It used to have a 'bot' too called 'Papa' but the operators of the German IRC server where it was based, banned it. Booi!

#AmigaCafe

In answer to the criticisms that the #Amiga channel is full of overzealous channel operators who are quick to flame and kick new users off the channel, #AmigaCafe is touted as the friendly new Amiga channel. All men are equals and aggressive behaviour is strictly off topic. Makes a change from #Amiga sometimes.

On Undernet:

An alternative network which can be connected to in the UK by means of 'uk.undernet.org'. It's smaller, faster and has near zero netsplits. Unfortunately it suffers from Catch 22: No-one uses it because there's nobody there. Hence it's not as popular as EFFnet. Shame. The #Amiga channel also lives in this network.



Net God Speaks

'Give us for network capable Scorched Tanks!' screamed the #Amiga IRC channel in the topic banner, referring to the lack of proper network games available for Amiga 'net nuts'.

That's right, this month I'm going to moan about the lack of good games to play over the net. How about Gloom? Wouldn't it be great if there was a Gloom server where we could all swoop in for a MUD with a difference. <drool> It's not hard to do either ... those games that already support serial links just need to have the facility to change the device used so that we can play them over the 'net via the incredibly useful TelSer device. Why limit link games to a local or even national call when the world is crying out for a decent game of Alien Breed 3D.

Commercial developers and Shareware programmers alike take note, we'd pay good money for the prospect to cut, blast and nuke each other to bits across the Internet. How about giving it some thought eh? Go on, my sovs are in the post if you do.

On a slightly different note, the Amiga conferences were strangely devoid of probing questions from one of their most vociferous advocates: John Kennedy. The reason? In case you haven't heard he got married in September!

Surf's up

The surf king wants more decent 'net games. Plus, what's hot and what's not in net land.

News:

Zeus BBS unveiled

The Zeus BBS software has been hot news ever since it entered beta testing. Finally it's been released to the public. The Brighton based programmers Nick Loman and Alex May released Zeus on the 30th of September at a party that drew SysOps from all over the world to celebrate.

Zeus promises to provide one of the best BBS host packages on any machine, let alone the Amiga. Advanced features such as *Arex* menus, local RIP viewing, multiple message base formats, including Internet support and the Hydra bidirectional protocol, have had many SysOps jump ship from other less capable software. The BBS package draws heavily on *Arex* for its near infinite configurability so some knowledge of the language would be useful.

If Zeus sounds like it may be the BBS package you're looking for, why not contact the Zeus team on E-mail: zeus@mistral.co.uk or WWW: <http://www.mistral.co.uk/zeus.html> for more details.

New IRC client

Oliver Wagner, author of CLChat has unveiled a new standard IRC

client, *AmlIRC*, to compete with the American programmed *Grapevine*. *AmlIRC* will use MUI to build the user interface, a move which should cause controversy as opinions on MUI are extremely polarised.

Wagner's earlier client *CLChat* was a valiant attempt at taking on the IRC monopoly by allowing Amiga users to set up their own servers and directly link them to others. The problem was that Amiga owners failed to be motivated to participate in the *CLChat* network and it remained deserted. So it should be interesting to see how this one is received. At any rate, the new features and ease of installation make *AmlIRC* worth a look for anyone either new to the IRC or a *Grapevine* old hand.

On hearing the news *Grapevine* author Brian Cerveney was heard to say, "Interesting how it has adopted my channel text method."

demon.ip.support.amiga debates A1200 package

Since the announcement of the A1200 bundle contents, Demon Internet Services' Amiga



customers have been debating the worth of the packages included in the bundle. The general consensus was positive on most scores apart from the games software.

Criticism was levelled, though, at the high price of the bundle whilst others thought that an Internet package should have been included.

Team Amiga offers grass roots support

Rick Lembree, an American contributor to the AMIGA Fidonet echo, has created what he described as a grass roots

support club called 'Team Amiga'. The single rule for membership is, "That you are an Amiga fanatic who extols the virtues of the Amiga to anyone and everyone you meet who is interested in computers and now that the Amiga's future is looking up, you'll continue to do so even more fervently than before."

Rick also asks that you get your details to him so that they can be added to a membership list and he stipulates that he must be acknowledged as being the 'one who started all this'.

Anyone trying to organise some Amiga support must have their heart in the right place as far as CU Amiga Magazine is concerned. You can reach Rick via Fidonet at 1:326/209. ■ netgod@cu-amiga.demon.co.uk

Thor 2.1 released

The shareware Thor package provides a superb interface for mail and news handling and has been steadily improved since its incarnation. With the advent of the newly released version 2.1, many improvements have been added not least the inclusion of the ThorTCP package. This provides dedicated Internet Mail and News surfing clients (NNTP SMTP and POP3) for Thor which turns it into an entire solution providing not only the means to read and write the electronic mail/news but to also upload/download it from your provider. Many bugs fixed and small improvements have been added to the software which must surely make it the No.1 integrated mail and news package for the Amiga. You can find it on the Aminet in the comm/mail directory or you can drop into the Thor WWW homepage on:

<http://www.cs.uit.no/~kjelli/thor.html>

The new home cinema...



... read all about it in the November edition of **PC Review**. Comes with two high-density disks or one CD with up to 28 demos and games and money-saving programs.

**The best magazine for the home PC owner.
On sale 15th October.**

PCREVIEW

Image FX

PART

5

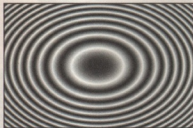
Yet more stunning graphics tricks are uncovered in this month's Image FX tutorial.



▲ Break the sound barrier: this F-18 Hornet has been merged through the sound barrier with a combination of Image FX processes. The ripple effect is achieved using the concentric circles image (below) as an alpha channel, which then leads its texture to the main image. The unaffected plane was then dropped over the top.

The first of this month's *Image FX* creations introduces the idea of 'alpha channels'. Alpha channels are images that are used to alter the main picture, which can be very useful if you want to add textures to an image without destroying the original pixels.

The main image was taken from the Amint CD-ROM from the CD-ROM edition of this month's *CU Amiga Magazine*. It's called 'fat18_kg.jpg' and is located in the Amint/pix/vehic drawer. Take a look at the final image and you'll notice that the plane itself (unlike the background) is unaffected. The first thing to do then is carve out the plane and save it out to disk. The best way to do this is to cut out the plane as a rectangle, paste it onto a spare



▲ This is the image responsible for adding the ripples to the background. It was created with Photogenics using the ripples loader.

buffer and then remove the surrounding detail by hand. Save it back out once you've done that. Once the effects have been applied to the main image, you can paste the cut out of the plane back in position.

Now you can start applying the effects to the main picture. First of all the sky has been

recoloured to add some contrast to the predominantly green and blue image. Select Poly from the area button (usually marked 'Full'). Now mark out the area of the sky and select Solarise from the Colour menu. For a more dramatic effect, try selecting Custom and drawing out a wildly oscillating line on the graph. This will give you a wider range of colours in the sky.

Alpha channels

Here comes the alpha channel part. The image used for the alpha channel in this case was actually generated with



▲ A solarise effect was used on the sky to increase the colour content of the picture.



▲ Here's the original picture, as it appears on the Amint CD-ROM, prior to processing.

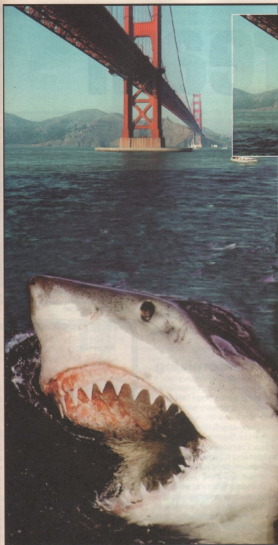


▲ The plane was cut out from the original, then pasted back onto the rippled background.

Photogenics using its Ripples loader. Load this into the alpha channel using the Alpha menu. Copy the main image into the Swap Buffer using the Buffer menu.

Select Filled Rectangle drawing mode, and double click on it to access the draw mode options. Switch the Mode button to Rub Through and the Alpha button to Use As Texture. Now drag a rectangle from the top left corner of the picture down to the bottom right. The image in the alpha channel is used to give the main image a new texture.

You can now load the cut out of the plane back into the spare buffer, cut it out using the 'magic scissors' icon (double click on it) and paste it back into its original position on the main image (turning on Anti-Alias mode to smooth the edges).



▲ See cheese! My Sharkey takes time out to terrorize the inhabitants of San Francisco Bay thanks to some simple image composition and the powerful Pantograph tool. Can you spot the joins?

Shark attack

This one is a striking but fairly simple combination of two images, except for one thing. The Pantograph feature was used in order to join the two without it looking obviously faked.

The source images are both on the Amineet CD for those with the CD-ROM edition of CU Amiga Magazine. The upper part is an image called 'goldgate.jpg' and can be found in the Amineet/pix/views drawer on the CD. The shark is naturally enough

a file called 'Shark.jpg' and is in the Amineet/pix/fauna drawer on the same disc.

Once the images have been scaled so that their horizontal dimensions match, a new screen or buffer needs to be created. The dimensions of this need to be as tall as the combined heights of the two source pictures, with the same width. Load the picture of the bridge into the spare buffer, cut it out as a brush, and then paste it onto the top half of the empty buffer you just created. Load the shark picture into the



▲ You can find this picture of the Golden Gate Bridge (goldgate.jpg) on the Amineet 7 CD-ROM.



▲ If it's scary fish you want, you can't beat a great white shark. Is that a hand poking out of his throat?

spare buffer, cut it out and paste it onto the bottom half of the main picture.

You'll now have something that resembles the final picture, but the joins between the two will be very obvious (see top right). This is where the Pantograph trick comes in.

Pantograph painting

Pantograph drawing is available from the drawing mode options. You can use it to duplicate parts of an image in order to fill in or erase features. Choose a brush size of about eight pixels, and select solid line freehand drawing. Double click on this icon to access the options and cycle the Mode button so that it reads Pantograph.

Now move the pointer to a part of the sea above the shark, hold down the ALT key and press the left mouse button. This defines the source area of the picture, from which graphics will



▲ Now that's not very convincing is it? The two pictures are obviously from different sources but the Pantograph tool will soon merge them seamlessly together.

be copied when you paint elsewhere on the screen. Now move to the area between the two images and start drawing. When you release the mouse button you'll notice that the sea from above is duplicated in the area you've just covered. Repeat this process, re-defining the source point with the ALT key occasionally to keep it looking natural.

As you get closer to our fishy friend, you'll need to fade the waves into the dark water and spray around the shark. Gradually decrease the Blend percentage from the drawing options to get a natural gradation.

Pantograph mode is a very useful tool. For instance, it could be used in the same way to duplicate the lone yacht into a small flotilla of boats, or to extend the mountain range on the horizon. ■

Tony Horgan

Memory Loss

If you seem to be getting continual 'Out of Memory' messages, try scaling your images down. If you still don't seem to have enough RAM, try disabling the undo feature and deleting all unused buffers (including the alpha channel).

Pagestream

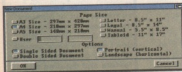
Before powerful computers such as the Amiga, creating a stationery pack was the job of professional graphic artists. Not any more, CU Amiga Magazine and Softlogic have given you your very own design studio.

Using Pagestream you can create lots of items that would have previously cost lots of money to produce. As an example of this we are going to concentrate on the stationery pack for the next few months. Such a task gives me the opportunity to show off many of Pagestream's features so you can make use of them for other jobs like newsletters and so on.

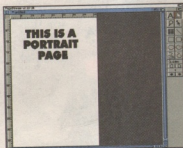
This month I want to walk you through a number of the features in Pagestream 2 that will help you to map out your pages. These functions include grids, guides and page sizes. The version of Pagestream I'm working with is the same as the one you should have from the CU Amiga Magazine cover disk. The stationery pack in these tutorials contains a letterhead, a set of three compliment slips and a sheet of business cards.

1. Making pages

The first job is to create some pages. Select the 'File/New' menu item. This brings up the 'New Document' panel which is the starting point for all new documents. From here you can make use of seven predefined page sizes or click on 'User' and type in the size of a custom page.



▲ When it comes to creating pages you can go for predefined page sizes or use one gadget to create your own custom page size.



▲ A portrait page is one where the long edge sits upright.

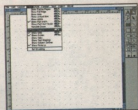


▲ Landscape pages are useful for many types of documents and can be easily created in Pagestream 2 at the click of a button.

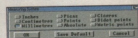
For the stationery pack, we want an 'A4' page size because that's the most common paper size used here in the UK and Australasia. CU Amiga readers in America will probably want to use another page size like 'Letter'.

Of the other attributes, make sure you have 'Portrait' selected as well as 'Single Sided Document'. This is because each of the pages we are going to create has only a single page. If you were creating a newsletter or book say, and wanted to make use of Pagestream's 'Master' pages tool, you would probably choose 'Double Sided Document', because that will give you a Left and Right master page. This is essential for pages in documents where two pages face each other. (See the boxout for more information about 'Master Pages').

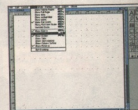
When you have set all the attributes for the new page, click the left mouse button on OK. With the document created, it's a good idea to save it in case of crashes or power failure. The first time you go to save a document, choose 'File/Save As' and give your file a name.



▲ Turn on rulers by selecting the 'Show Rulers' menu item or type in 'Right Arrow-R'.



▲ You are spoiled for choice when it comes to choosing a measurement unit.



▲ Having a grid showing, can be distracting when designing a page. Use the mouse to select the menu item 'View/Show Grid' to turn it off.

2. Customising

Last month in CU Amiga, you learnt how to set some attributes for Pagestream using 'Tool Types' found in Pagestream's icon on Workbench. We are now going to take that a step further and customise Pagestream for the jobs ahead. The reason we do it now and not first is because to save the settings, we need a document, which we now have.

Our first attribute to set is the unit of measurement you want to work with. This is set from the 'Global' menu. The default unit is 'Inches', something many of you will prefer. Me, I use 'Ficas', while many others I'm sure will choose 'Millimetres'.

To set Pagestream to use the unit of your choice, select the but-

ton for it and then click on 'Save Default'. The unit I'm using during these tutorials is 'Millimetres'.

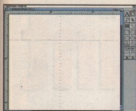
3. Ruling pages

Units are one thing, but you need to see them on a ruler to know where you are on the page. At the moment, we don't have any rulers visible, so choose 'View/Show Rulers' and two rulers will become visible.

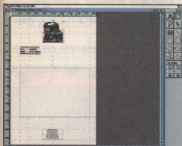
Master Pages

As we won't be using 'Master' pages during this series of tutorials, I'll give you a quick idea of what they're used for. In multi-page documents like newsletters, reports and books, you will generally have a number of elements that are repeated on every page. A page number or a header giving the title of the document, for example.

Instead of having to create these on each page, you can place them on a 'Master' page and they will be present on every page in the document. Don't place just anything on the 'Master' page though. Leave off items that you may want to edit later, like text columns for instance, because items from a 'Master' page can only be edited on the 'Master' page.



▲ To place your guides accurately, use the Zoom tool to go in close to the page so you can see the units clearly on the ruler.



▲ This is an example of how the guides can help when placing all the elements on the page.

4. On the Grid

You will probably notice that there is a series of dots across your page. This is the 'Grid'. To turn it on, click the tick next to 'Show Grid' in the View menu. To hide the Grid, go to the 'View' menu and click on the 'Show Grid' menu item. With no tick next to it, you can see it is set to off.

5. Guiding hand

Of more use, in my humble opinion, is the 'Guides' function. This is a non-printing line that can be placed on your page to help you align elements, as well as give you an idea of where things go on the page. The uses for 'Guides' is limitless and we will see a number of uses during this tutorial series. For now, I want to show you how to set some 'Guides' which will

give you an idea of the margins you need for your pages. You should still be on page 1.

As most of you will have probably discovered, when you go to print a page, there are parts of the paper that the printer cannot print on. These are known as the printer's hardware margins. So, before doing anything in this document, you need to put some guides down on the page that outline the area on the page that your printer cannot print on.

In my case though, I know the printer margins are much smaller than the margins I want for the edit area of the page. The Edit Area being the part of the page that will contain all the elements. In a letterhead for example, a useful set of margins is 25mm margins on both the left and right of the page. In some cases, those margins may be even bigger.

More important than the side margins, is the bottom margin. This will signal the point where all elements will stop. I normally use a 12mm bottom margin so I can place a page number there if needed. If your printer requires a larger hardware margin, this will need to be bigger. On some printers, you will have to allow for a 25mm bottom margin.

As for the top of the page, 12mm sounds good for that.

Now that I know how big the edit area is on the page, I can start putting the guides in position to mark it out. Use the 'Magnification Tool' to zoom in on the top left-hand corner of the page. As soon as you make out the units on the ruler clearly, click once on the Horizontal ruler at the 25mm point to create a vertical guide and then at the 12mm point on the vertical ruler to create a horizontal guide. That's two guides out of the way. You can now cre-



ate the other two guides for the bottom of the page and the right-hand margin.

To remove a 'Guide', click on the ruler where the Guide intersects it and the 'Guide' will disappear.

6. Get in line

Guides are useful for more than just marking out where your margins are. They can also help you position elements on a page. If we take the letterhead as an example, there are a large number of objects that need to be placed on the page. There is the address at the bottom of the page and the pieces of text for your recipients name and any reference numbers required.

In most circumstances, you will have a rough mud map of what you want your letterhead to look like and the elements needed. This mud map can be used when putting your guides in place. If you take the example here, I have a line down the middle and many lines across the page. With these in place, when I create my elements, I can use the lines to quickly put the elements in position. Especially if I have 'Snap To Guide' ticked in the Layout menu.

Let's take the centring of elements around the guide as an example. Most people can guess where the centre of the page is,

but if you place a line right down the middle and then use that line when positioning boxes, there is no guess work involved and you get a much more polished job.

As an example of how these lines are going to be used, take a look at the screenshot of the finished page with the grid lines in place and



▲ The above three pages show some good examples of adding logos in your stationery.

you'll see how they work with each other.

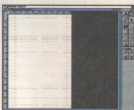
We're getting close to finishing this tutorial, so I'd better tell you how to save all these settings such as 'Rulers' being on and 'Show Grid' being off. Go to the 'File' menu and just under 'Export' is an item called 'Save Doc Defaults'. This is used to save many of the default settings for the document layout commands. If you want 'Show Rulers' on in future, make sure 'Show Rulers' is ticked in the View menu and then choose 'Save Doc Defaults'.

A few words of warning before we finish. The guides you have used will be repeated on all pages, so make sure you finish your first page before removing them and adding new ones to the second page. The other option is to create a second and third document for each of the other pieces of stationery which we'll deal with next month when we look at adding text to a document and everything that entails. ■

Larry Hickmott



▲ With 'Snap to Grid' on, placing text objects is very easy as the elements snap to the guides on the top and left of each object.

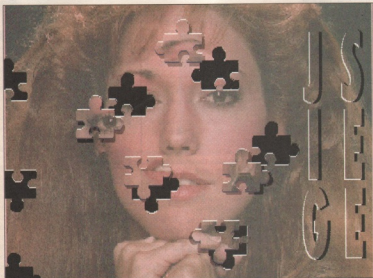


▲ Although this many guides may seem messy, each one is necessary to help place all the items required.

Personal Paint

PART 2

The wide range of Personal Paint's filters may seem a bit confusing and perhaps even a little redundant to many Amiga artists. But this month we show you how they can enhance your work, and skills, at the click of a button.



▲ The completed jigsaw picture showing the pieces placed next to the 'holes' they came from.

For a budget program, *Personal Paint* certainly doesn't skimp on the features. And perhaps the most surprising, and rewarding, of these for a standard Amiga art package is the range of special effects it offers.

High-brow, high-cost dedicated alternatives which concentrate on image processing are all very well, but they pander to a niche market. With *PPaint* you can extend your flair and experiment to your heart's content, and still have a great drawing package too.

This month I'll be touring the range of effects available, offering a few ideas on the way on how you can soup-up your work; one flick of the wrist and a boring picture can transform into a real eye-catcher: here's how ...

So many features

Last month we focused on just one effect, stereograms. However, there are plenty more features lurking behind the Filters icon on the

toolbar. Mainly you would use these on digitised images, to add your personality to them, to improve their artistic merit. There's nothing to stop you using the effects on your own artwork, and probably the nicest to use are Texture and Emboss, because they don't freak your original image about too much.

For this tutorial, I've stuck with digitised images. I've scanned in most of the images here but you have virtually unlimited access to digitised images in the Amiga public domain, both on disk and CD, and if you're lucky enough to be connected to a bulletin board, the things fairly bristle with images. Also, one of the joys of *PPaint* is that the source image doesn't have to be in the standard Amiga ILBM/IFF format – it can load in PCX and GIFs, which is supported by the vast majority of computers.

A bit dotty

One of the simplest and coolest effects you can impose on any image is to render it down



▲ Different dither settings create different effects. Top right we have Cluster Dots at 26 levels, below it 10 levels of cluster dots and to the left dispersed dots with 65 levels.

to its basic components of light and dark. The dither effect is ideal for this. It scrapes the colour information, and instead uses variously sized dots and patterns to build up a new picture – very much like a newspaper, where halftone dots perform the same function.

You might need this effect to allow your printer to make a better job of the image; some black and white printers can't handle 256 colour images very well but can easily churn out a two-colour dot pattern. Or you might want to subdue the graphic image on screen so it doesn't detract from a text message, which may get lost in the complex colour shades.

Whatever your reasons, the effect varies according to the dot levels you choose and the illustrations here show the types of



▲ Another form of dithering, to turn your image into monochrome, uses the Floyd-Steinberg technique. It's a little like the other dithers, but more subtle as it uses smaller, more regular patterns to create the whole image.



▲ Although Personal Paint throws away colour and shade information when it uses the Filter Filter, the image is still recognisable and prints very well as a monochrome print. The filter used was Dispersed dots at 257 levels, which offers the best available quality.

results you can expect. A bonus is that this effect is quick too – you simply select your dot scheme from the effects menu, drag out a rectangle and the image is zippily converted, using the current foreground and background colour combination.

Texture

Unlike DPaint, which allows you to impose any number of textures on an image (in a roundabout fashion, so don't get too excited), PPaint just has one texture and it's supposed to represent some coarse fabric, such as canvas. It's basically an embossed weave, which may or may not improve your subject, but on things such as portraits it does give a semblance of an oil painting, though the weave is so stringy it isn't too sophisticated.

Randomize

This effect actually achieves better results than its name implies and when used in the Oblique mode can turn a grey-scale image into something very close to a pencil sketch. It basically treats the picture like grains of sand, shaking them up, so your sharp edges disappear in a grainy contour.

The effect can work well on colour images



▲ Texture filter offers a one-click deal: there are no parameters to adjust, you simply get what PPaint gives. In cases such as this, it's pretty good at simulating canvas, but it is hit and miss, so test on small areas before you use it as it can take a long time to render.



▲ Here we have a fine figure of a man as our example. A grey-scale digitized image is turned into a pencil sketch by using the Randomize High filter, which distorts the edges of an image sufficiently to create a hand-made feel.

too, where pastel and charcoal effects can be simulated. If you follow up with the blur effect, you can create some realistic looking brushwork which even rivals some of the techniques used in *Photogenics*.

Watercolour

Applying this effect to a digitized colour image produces some beautiful effects, more like coloured pencils than watercolour to my mind, but still quite stunning. It streaks as it blurs to turn an ordinary snapshot into not quite a work of art, but very nearly.

Jigsaw

Here's a little example of the Rub Through effect, showing how you can use it to good effect. Initially I loaded in the image to the main screen and copied it to the alternate screen; this was simply to ensure the colour palette was identical on both screens. I erased the image from the alternate screen and on it drew a representation of a piece from a jigsaw puzzle and filled it in. I cut it out as a brush, erasing the screen again and selected 'rub through' from the effects menu. To locate good places for the pieces to be cut from, I flipped to the main image screen (key j)

and back again, painting the jigsaw piece brush down on the alternate screen. This brought through a portion of the image from the main screen in the shape of the jigsaw piece. I repeated this simple process half a dozen times so that on the alternate screen I had six jigsaw-shaped pieces, all correctly positioned in relation to each other.

From time to time I flipped the brush horizontally (x key) or



▲ There lots of filtering going on here, showing the subtle effects which you can achieve with some of the wide range of filters available. There are just three examples shown here: darken, randomize and tint.



▲ The watercolour oblique filter can be used to superb effect on digitized images; this landscape photo can be made to resemble a fine art masterpiece with the effect.



▲ Here's the alternate screen from the jigsaw picture, showing the rubbed through pieces from the main face image. Adding a highlight to the small pieces gives a real sense of substance.

vertically (y key) to add randomness.

I added a white highlight to the image pieces to add a sense of depth by selecting white as the background painting colour, and painting down each piece in turn with the right mouse button before offsetting it slightly and painting it down with the left button.

On the main image screen I used the original jigsaw piece brush, coloured black, and painted it down in the same locations as the RubThrough pieces were taken from. This left an impression of missing pieces, and I placed the rubbed-through images from the alternate screen adjacent to the holes they would fill in the puzzle.

As a finishing touch I added a slight shadow under each piece before painting it down, by using the Darken 25% option in the Filters menu and the original jigsaw piece brush.

Venus embossed

Here's an example of a superb effect which is a piece of cake for *Personal Paint* – emboss. The term refers to a technique which gives the impression that image lines have depth – they look as if they are raised above the surface. To do this, the program works out where the edges are on a loaded image, then adds a shadow and highlight to them, losing all the colour detail in the process.

The image I chose should look familiar – it's a section of Botticelli's *Birth of Venus*, and was used as the basis for one of the first pieces of artwork for the Amiga (in *Deluxe Paint*, along with the mask of Tutankhamun and the gorilla head). I scanned the detail in greyscale and added a few extra colours to the palette from within *PPaint* for any text work. This is easily achieved by choosing the 'colour/less colours' menu option and decreasing the number of colours used. I've added a variety of hues to show that it makes very little difference to the overall image if you have 250 greys, or 200.

Using 'emboss high' from the effects menu, it was then just a matter of drawing out a rectangle to encompass the face, and waiting for *PPaint* to work its wonders.

The emboss function is pretty robust, but there are no user-defined parameters to allow you to tweak it properly – which direction the light is coming from or how high the emboss edge is. But at least you can remove a lot of the unwanted 'noise' from the picture by using the 'blur low' effect on the embossed picture.

Remember, you can use as many effects

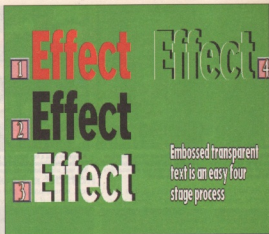
on a graphic as you like, one after the other.

Blurring takes out the graininess and gives us a much more pleasant effect.

The next stage is to simulate stonework, and to begin this phase I used black and the filled freehand drawing tool to 'eat' away at the edges in a rough fashion. To add substance to the stone-effect image I added a drop shadow to it. This is done by selecting the shadow colour from the palette (in my case dark blue on a light blue background), pressing key F2 to turn the whole brush image into the colour, and painting it on screen before pressing F1 to restore the image. Next I moved the brush image, offsetting it half a centimetre, before painting it on screen over the shadow colour.

The final touch was the text, which although simply a dark and light outline, looks as if too has been carved out of the stone.

That's it for this month I hope you've



▲ Placing text on an embossed image requires a little work to make it appear as if it were carved from the rock. Here's an easy-to-follow guide to how it's done:

1. Type your text.
2. Cut it out as a brush, and paint it down as a black image (use key F2 to change it's colour to the current palette choice).
3. Offset the brush image slightly over the black text and using white, paint it down again.
4. Changing the text brush colour to that of the background (in effect making it invisible) place it over the white/black image so that there's just an edge showing, and paint it down. You will now have hollow text, with white and black edging simulating light and shadow. Painting this down on a picture will make it appear raised, but still part of the image.

enjoyed learning how to make beautiful creations. Next month I'll be back with more expert guidance to help you fine-tune your skills with Amiga graphic packages. Until then keep experimenting with *PPaint*. ■

Peter Lee



▲ The original image had around 250 greys, taking up the whole palette. Use the 'colour/less colours' feature to get some colours back.



▲ From the colour palette you can now use the broad colours to create ranges whilst still retaining the integrity of your original work.



▲ The main image has had the 'emboss high' filter imposed on it. It looks fine, apart from the graininess. But there is a solution...



▲ ...and that's to use the 'blur low' feature, which retains the high-light effect we've added whilst smoothing out any imperfections.



▲ Using black and the freehand drawing tool, edges of the picture are eaten away to give the impression of broken stonework.



▲ Here she is: Venus herself complete with drop shadow and text. See pic top right for how to add text.



Frequently asked questions

Having trouble communicating? Don't worry, the Amiga has that lark sussed. A Null modem cable should soon see you interfacing with all around you.

■ Q. What's the best way to move a lot of data between two Amigas?

■ A. Floppies are too slow, so hard drives or some form of removable media are the only sensible solution. If both machines have internal hard drives, then a second PCMCIA-slot based drive should do the trick. If both machines have Zip drives or Syquest drives then you will only need to carry the disk cartridge between them.

■ Q. What if one machine isn't an Amiga?

■ A. Removable media can be used with the Amiga and formatted to be either PC or Apple Mac readable. This allows large quantities of data to be swapped quickly and reliably.

■ Q. Can I link two Amigas with their serial ports?

■ A. Yes, all you need is a Null modem cable, which swaps over pins two and three, and four and five. (Pin two at one end is linked to pin three at the other, and vice versa). Pin seven remains common to both. A Null modem cable is used to link two Amigas for playing games, but you can also use it to send files between machines. It can be more straightforward than using lots of floppies. Sometimes (with games especially) pins four and five need not be connected as they are for 'handshaking' (a method of controlling the dataflow) which is not always required.

■ Q. Can I link the Amiga to other computers with a serial line?

■ A. Yes. Use a Null modem cable and run terminal emulation on both systems. You can then use the ZModem file standard to send and receive files.

■ Q. How long can this cable be?

■ A. Depending on the quality of the cable and the speed at which you want to transfer data you should be able to reach up to ten metres. Beyond that, you really need to resort to the telephone network and modem. Typically, you will be able to transmit data at about 19,200 bits per second or greater, although sometimes 9,600 seems to be a safe limit.

■ Q. Why do I need a modem for this?

■ A. A modem will convert the serial information from the Amiga into audio tones which can be transmitted down the telephone line. It will also convert audio tones into serial information.

■ Q. How fast is a modem?

■ A. A top of the range modem will transmit data at 28,800bits per second (bps). This is about 2.8Kbytes a second, or about 10Mbytes an hour. It's not very fast compared with a hard drive, but it's quite reliable. A modem which operates at 28,800bps and supports the current standard is said to be 'V34'.

The semi-standard 28800K and VFast speeds have been superseded and you should try and get V34 whenever possible.

Slower 14K4 modems are not very affordable and good value. The difference in speed is usually not as dramatic as you might think (there is no difference at all when sending faxes), although if you are a heavy comm user the V34 modem is a better bet.

■ Q. Can I use a modem designed for use with a PC?

■ A. As long as the modem is an external version (i.e. a little box with a separate power supply) you can use it with any modern Amiga. You will need to make sure the cable ends with a 25 way connector and not the nine-way connector some PCs use, though.

If the modem is an internal card, then in special circumstances it can also be used. The card will fit into the Amiga 2000, 3000 and 4000's PC Zorro slots. However, before it can be used some form of bridgeboard is required. For example, the Golden Gate 2 card from Eyeteck will allow a PC modem card to be used.

■ Q. Can I connect two modems together?

■ A. Only by forcing one to dial the other.

■ Q. Can the modem send faxes?

■ A. Yes and receive them too but you will need suitable software. A program such as GPFax is your best bet.

■ Q. What are the different fax 'classes'?

■ A. Some modems are Class 1, some are Class 2. Generally, the older, cheaper models are Class 1. Class 2 modems are usually more widely supported with

fax software, although GPFax will now support Class 1. Class 1 lacks some features which will probably not be important to you, unless you run a Bulletin Board.

■ Q. What software do I need to use a modem?

■ A. That depends on what you want to do. If you want to use a Bulletin Board, you will need a terminal emulation program, such as Term or JRComm available from Public Domain libraries. You might also want to consider the commercial Terminate program from HiSoft.

If you want to take part in FidoNet, you can use a terminal program or dedicated off-line reading software such as Spot. Spot requires another program called Trapdoor in order to operate, both are shareware.

For Internet access you will need AmiTCP and other programs for mail, new or other facilities. There are more details on AmiTCP in the regular Wired World column.

■ Q. Can games use modems?

■ A. Yes, some games which support Null modem links also support modems. Be warned: this is a good way to earn yourself a large telephone bill.

■ Q. Can I connect Amigas with their parallel ports?

■ A. Yes, but not as easily as with serial ports. However, as parallel systems have more wires they can work a lot faster. Also, freely distributable programs such as ParNet and commercial systems like Liana offer advanced networking facilities: a disk drive on one machine behaves as though it was attached to another. Parallel links cannot be used over telephone lines with modems though. **■ John Kennedy**

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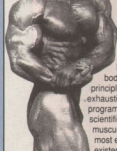
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Masterclass

One of the things the Amiga is best at is doing several things at once: find out how to make your own SlideShow in the Masterclass.

Forget Windows 95, I'm going to show you what multitasking multimedia is really about. Using *ARexx* to link together sound and pictures you can create some stunning slideshows. And it's so easy to do thanks to the versatility of our Amiga.

ARexx, if you need reminding, is the programming language which comes free with all Amigas and allows application programs to communicate with each other. An application can launch an *ARexx* program to communicate with another program which is running in the background or alternatively an *ARexx* program can be started by the user from the Shell.

If you have been playing with the great *OctaMED 5.04* cover disk giveaway from the September 1995 issue of CU Amiga Magazine, you might have discovered a program called 'OctaMedPlayer'. This small utility is for playing back sound modules: no editing, no saving, only load and play. It has been designed for situations when you only need a simple player program: for example, you might use a directory utility such as *Directory Opus* in which case you can configure *OctaMedPlayer* to handle any Mod files you select.

The player utility also has an *ARexx* port which means it's possible to control it from other programs. For this example slideshow we will need the *OctaMedPlayer*, plus a picture viewer program. I'm using a viewer called *FastView* by John Hendriks because it has some

very useful features and it makes a welcome change from the Viewtek program I seem to use all the time. You can find *FastView* (and Viewtek) on the Aminet (either the CD-ROMs or Internet site) or from The Heart of Gold BBS (use your modem to dial 01247 274919).

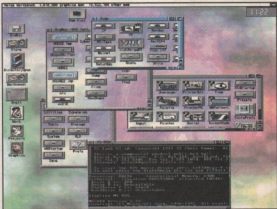
ARexx tricks

ARexx is a very simple language and is particularly easy to use. You enter the programs using a standard text editor such as *ED* (or perhaps something better like *GoldEd* or *Cygnus ED*) and save them to disk. If you give the programs a name which ends in *.rexx* (ie program1.rexx) this helps mark them out as *ARexx* programs.

There are only a few tricks to know when writing *ARexx* programs and one of the first is to make sure you always start your program with a title, between comment markers. The comments are normally ignored by *ARexx*, but for some reason it insists that you use one on the first line. Here is a simple *ARexx* program which you should type in and save as program1.rexx.

```
/*
Program 1
A simple example
*/
say "Hello World!"
exit
```

Now you can run the program using the 'x' command from an AmigaDOS Shell. If the *RexxMaster* program is running in the background (if it is not, type *RexxMaster*



▲ Try doing all this on a PC then notice! PC Task and Windows95 are all very well but ARexx gives you so much more versatility controlling Workbench functions and programs.

to start it) the *rx* command will take the name of the program you give it (assuming that it ends in *.rexx*) and executes it. If you run our example program, you'll see something exciting like the screenshot on the bottom left of this page.

With the preliminaries out of the way, we can now see how *ARexx* can be used to control other programs. Find the *OctaMedPlayer* program and start it running. If you wish, minimise it to give yourself more space on the Workbench. Next find a Mod tune to experiment with and save it to the RAM disk.

Now enter the following program and save it as program2.rexx.

```
/*
Program 2
Controlling OctaMedPlayer
*/
address OCTAMEDPLAYER
loadmod "ram:mod.mytune1"
play
exit
```

If, when you run the program with 'x', you see an error message such as 'Host environment not found', this means that either

the *OctaMedPlayer* is not running in the background, or that you have spelt its name wrong in the address function in the first lines of the *ARexx* program.

It is the task of 'address' to make sure that *ARexx* sends instructions to the correct programs. Each program has a unique *ARexx* port name, which must be entered exactly. You will normally find the port name in the program documentation.

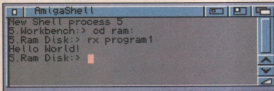
When you get the program to run, you will see the player load the module and start playing it, exactly as though you had done it manually.

Altered images

Adding image control to our *ARexx* program is slightly more difficult. Ideally, we need a viewing program which also supports *ARexx*, but unfortunately there aren't many of those about.

However, *ARexx* allows you to use any program as though you had entered the commands directly into the Shell. This means we can still make full use of a program such as *FastView*.

When you obtain and use *FastView*, you should experiment



▲ ARexx is capable of many things for more useful than printing the words "Hello World!", but in this test script that's all we want it to do for now.



▲ OctaMED's companion utility OctaMED Player can be remotely controlled using ARexx.

with it at the shell. When you are happy that it is working, create a few images in *Deluxe* or *Personal Paint* and save them as 1.iff, 2.iff and 3.iff.

Using Shell commands from *ARexx* is as simple as using the option 'command' after the address function. This means you could write a program to perform a directory listing as easily as this:

```
/* Display a Directory
listing */
address command
dir
```

The only catch is to make sure you enter any commands which have following options inside inverted commas, like this:

```
/* Display a Directory
listing only of files
created after 11:15 this
morning */
```

```
address command
"list since 11:15"
```

Bearing this in mind, here is a first attempt at a program which we could use to display images using *FastView*:

```
/* Program to display
several images using the
```

```
FastView picture
viewer*/
address command
"fastview 1.iff"
"fastview 2.iff"
"fastview 3.iff"
exit
```

If you run this program you'll see a major problem immediately: between pictures the Workbench display briefly reappears and then vanishes which gives a very unprofessional appearance.

Thankfully, *FastView* has an option which greatly improves this glitching. If you provide a list of files instead of only one, *FastView* will display one picture and then start loading in the next. Only when the picture is fully loaded will it be displayed.

We can therefore alter our program to look like this:

```
/* Program to display
several images using the
FastView picture viewer
with no glitches */
address command
"fastview 1.iff 2.iff
3.iff " waitforcmd delay
10"
exit
```

You can use wildcards if you don't want to specify all the files (try *#7.iff*), and if you want more or less time between the images alter the number 10. If you are loading files from floppy, the default time delay probably won't be long enough.

Sound

With both sound and video mastered, it's time to link them

together into one multimedia program.

To make life easier, I have included several user-defined functions which keep the address commands separate.

Creating your own functions is easy in *ARexx*. You need to think of a name and put a colon after it. Then type the instructions you want performed and end with 'return'. To use your function, precede the name with 'call' and add some brackets. Here's a simple example:

```
/* Function example */
call hello()
exit
hello:
say "Hello world"
return
```

OK, here's the biggie: a program which loads a module or two, starts playing and then first displays all the IFF images in a drawer called 'pictures' and then all the GIF images.

You should be able to adapt it to your own needs very easily and add more tunes or whatever else is needed. One possibility would be to add some movement: if you use the freely distributable image and animation display program *Viewtek*, you can add commands to load and play an animation as well as still images.

Viewtek will also play animations directly from hard drive, which means you can create some very complicated multimedia performances.

```
/* Slideview program v.01
Start of Performance */
call loadtune
("med.tune1")
```

```
call pictures1()
call playtune()
call pause(10)
call loadtune
("med.tune2")
call playtune()
call pictures1()
exit
```

```
/* Music Player functions
*/
loadtune:
address OCTAMEDPLAYER
filename=arg(1)
loadmod filename
return
playtune:
address OCTAMEDPLAYER
play
return
stop:
address OCTAMEDPLAYER
play
return
continuetune:
address OCTAMEDPLAYER
cont
return
```

```
/* Image Viewer functions
*/
pictures1:
/* Display all the IFF
images in the picture
drawer */
address command
"fastview pictures/#7.iff
waitforcmd delay 10"
return
pictures2:
/* Display all the GIF
images in the picture
drawer */
address command
"fastview pictures/#7.gif
waitforcmd delay 10"
return
/* Misc */
pause:
/* Go to sleep for a num-
ber of seconds */
address command
delay=arg(1)
wait delay
return
```

It's exactly this technique of using *ARexx* to link different programs together which makes the Amiga so special.

If you think what we have just done is pretty neat, believe me, you have only scraped the surface. *ARexx* can do just about anything you want it to do: just for one example, with a little extra hardware it is even possible to use an old television remote control to play *OctaMED* modules or turn your Amiga into a high tech presentation system. ■

John Kennedy

Workbench Patterns

I've had quite a lot of E-mail about Workbench backdrops this month: it's good to see so many of you keen to banish the blue and grey for good. Remember to send in your own backdrop set-up so that others can see what the Amiga is capable of.

If you want a high quality image such as the mountains and stream picture published last month you will either need access to a very expensive scanner, or do what I did: get it off a PhotoCD disk. Many chemists and photo dealers will develop an ordinary 35mm film onto a special PhotoCD CD-ROM which most Amigas can read (with suitable software and hardware). Unfortunately the service is a little patchy at times (my local Boots couldn't promise delivery within a month) but the quality is superb.

A cheaper (and faster) alternative is to use an image processing program to generate images from scratch. Programs such as Art Department Professional or Photogenics are excellent at creating abstract images these. Remember to keep the colours muted or you won't be able to read text over them. Many PD libraries also stock disks of textures which you can use as a basis of your new backdrop.



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Address your technical queries to Q+A, CU Amiga Magazine, 30-32 Farringdon Lane, London, EC1R 3AU. Alternatively email us at Q+A@cuamiga.demon.co.uk.



Tony: If you have a problem with your Amiga, any problem, don't hesitate to ask us. The answers follow ...



Mat: I'm sleeping in the office at the moment I've got so much work to do, but it's worth it all when I answer your questions.

A bit of DIY overclocking



I have an A1200 with 2Mb Fast RAM and a 20MHz 68882 FPU and I find it immensely slow. I was wondering if you could give details of how to overclock the '020 to 28MHz using the crystal clock on the motherboard.

**Terry Wilson
Redditch, Worcs.**

The simple answer to this is: you can't, I'm afraid. It's true that there is a 28MHz clock on the Amiga motherboard but it's only used for some of the custom chips like Agnus etc. Various clock double hacks were possible on the A500 but the A1200 has a surface mounted 68EC020 and it's not possible to modify this. The best bet is to sell your RAM board and pick up an Apollo 1220. This features a 28MHz 68020 and a 28MHz 68882. It costs £99 from Visage on 0115 9642828 or E-Mail: visage@innotts.co.uk. Mail: matthew@poodle.demon.co.uk

A3000 kicked



I currently own a secondhand A3000 (Kickstart v36.446 and Workbench v34.x) and an A500 Plus.

and I am having a lot of trouble getting software - old and new - to load on the A3000. Some of it just won't load, some of it crashes and the rest tell me I need v37+ of a library. I have tried to remedy this by copying the required libraries onto my hard drive but then get told I need Kickstart v37.175+ to use them. To get round this I downloaded Grabkick from Aminet and used it

to copy my A500's ROM onto a disk and tried to use that instead of my A3000's Kickstart file, but this didn't work either. I have also tried most of the softstickers on Aminet none of which have worked. I don't know anyone else with an A3000 and would like to know where I can get Super Kickstart v37.175 as I am getting p****d off at not being able to use some of your cover disks or software I have downloaded from Aminet.

**Paul Beaton,
Via E-Mail.**

A3000s normally come with Kickstart 1.3 and 2.0 on disk. You can select which ROM to 'softkick' from the early startup-sequence activated by holding both mouse buttons down after a cold boot (ie power must be switched off). The ROM version is usually sufficient, however some things will complain as you have already found out. More of a problem is the fact that the Workbench you have installed is 1.3. The 2.0 disks come with the A3000 so you should install them over the 1.3 installation if you have but one boot disk. However, you should have two boot partitions on HD. The 2.0 one should be activated by default. Since you got the unit second hand, it seems it here has been some jiggery-pokery going on with the system installation. One cure would be to go out and purchase a copy of OS 3.1. This will replace your boot ROMs and give you fresh 3.1 Workbench disks ensuring that you are completely up to date in both Kickstart and Workbench. The reason you can't use ROM images from the A500 is that they differ from the A3000. The A3000 ROM is tailor made for the exactly hardware like the A3000's built in SCSI controller.

Elusive ROMs



I have an Amiga 2620 processor card in my A2000. The problem is the A2620 does not autoconfigure as it has the wrong ROM revision on the processor board (rev 4). I need a pair of new ROMs (rev 6 or higher). I've tried for ages to get hold of these but can't find a supplier. Can you help?

**Bob Finemore
Margate, Kent.**

Sourcing updated firmware for Commodore peripherals has been very hard of late. Other products like the A2091 SCSI board also need ROM upgrades to remain useful. I'm afraid we've not heard where you might get these ROMs. However, if any readers volunteer a solution we'll be glad to pass it on.

Fragmented memory



Having installed your cover disk Image FX 1.5 on my 250Mb hard drive, the program does not seem to recognise my 6Mb upgrade in my Amiga 1200 and therefore I'm always getting out of memory requesters. When I check the about requester, I get the following messages:
Free Chip Memory 1376K
Free Fast memory 2215K
Largest Chip Memory 1719K
I estimate that it's only recognising about half a Mb of memory when in fact I do have 4+ Mb of memory for it to use. Please help me - what do I do to make it recognise my available memory?
Eddie Cousins

Sutherland, Scotland.

Eddie, the problem you are experiencing is memory fragmentation. If you have 4Mb of RAM and yet somewhere in the middle is a tiny amount of used RAM, the system will only be able to use 2Mb either side of this fragment. Certain Image FX operations require massive quantities of continuous RAM, as all images are stored and processed as 24-bit data.

Using smaller pictures would certainly help. Also remember to delete any buffers that are not in use and activate the Disable Undo button from the Image FX preferences menu if things get really tight. Another solution you could try is to use virtual memory which comes built into Image FX. However, you'd have to sell your RAM board and get one with a 68030 with an MMU on board in order to use this feature. While you're at it, you may as well upgrade your RAM if you can find the cash - you're really going to need it if you're serious about image processing.

A600 CD32?

I own an Amiga 600 and am interested in buying a CD-ROM (PCM-CIA). I have some questions to put to you: 1. To run CD32 software, will I need to upgrade to 2Mb or will it run happily with 1Mb? Is there any CD32 software that won't run on my Amiga, if so which? 2. In the September issue you told someone or other that one blink of the caps lock light meant a keyboard ROM error. My Amiga has done this ever since I had it and nothing has gone wrong. You told this person that if problems persist you will need a replacement keyboard. Why?

Michael,
Nottingham.

1. You could indeed plug a PCMCIA CD-ROM into the A600. There's no way CD32 games will work however. This is because your OS is 2.0 and not 3.0 as the CD32 has. You have the ECS chip-set where the CD32 has AGA and finally the point you raised, you have 1Mb where all CD32 software will take advantage of the built-in 2Mb in that machine. If you want to play CD32 games, you'll either need to buy a CD32 or a A1200 and add a CD-ROM. The latter won't work with everything. 2. We did incorrectly state that one flash meant a keyboard ROM error.

In actual fact it is one flash but repeatedly with the keyboard not functioning at all. It is normal for the caps lock key to flash once on reset/boot-up.

Black bands

I recently bought a Microvitec 1438 monitor and I have a few problems with it. When I use the Multiscan Productivity mode, even with full overscan I still can't get rid of the black borders on the left and right of the screen. I have the same problem with all the flicker free resolutions (DBLPAL etc). I tried the Microvitec on my father's portable PC and to my annoyance it filled the screen just fine.

The company I bought the monitor from told me that the manufacturer of the monitor will soon release a set of monitor drivers that are made specially for the Microvitec monitor. Will these drivers help get rid of the black borders? One last question, is it possible to make my own resolutions?

Stein Johansen,
Norway.

Stein, what you are witnessing is a problem with the Microvitec 1438. A problem it's big brother the 1440 doesn't suffer from since it sports digital resizing. As you may or may not know, the 1438 doesn't have any controls to stretch the screen horizontally like even the cheapest VGA monitors do. This monitor is otherwise excellent, multi-syncing to PAL and the high scan modes like Productivity etc, but the screen width is set up for normal VGA screen modes at 60Hz. I'm afraid there's no solution for the dreaded black borders.

We hope that Amiga Technologies will add horizontal sizing to this monitor since it is destined to be rebadged under their name as the official Amiga monitor. If they do, you'll need to resize every time you change between PAL and Productivity. It's very unlikely that new drivers will solve the problem and we haven't heard of any under development.

In answer to your last question, it is indeed possible to tweak your monitor settings with a Public Domain program called Mon-ED but the results are rather unpredictable and generally disappointing. You'll have to get a new monitor or soldier on.

Muted Sound

I've been using your excellent OctaMED 5.04 cover disk with some existing samples. Lately I've wanted to create my own samples so I've turned to OctaMED's built in sampler. The problem is, the samples OctaMED makes sound muffled. When I use the Megaloud software, they come out fine. Is this a problem with OctaMED or am I doing something wrong?

J S Allen
Bedford.

OctaMED's sample editor defaults to a rate of 8KHz (C-2). This is too low for decent quality samples. To increase the sampling rate, press F2 to transpose the keyboard up an octave. The 'Q' key on the keyboard will then represent C in the third octave (C-3) which corresponds to a frequency of 16726 Hz or twice the default sample rate. Enter the sample editor. Move the pointer to the box that has 'C-2' marked in it. Hold the left mouse button and press 'Q' or any other key to change the sample rate to the rate of the chosen note. Sampling at C-3 is perfectly adequate though will obviously result in larger samples requiring more memory and disk space. Drum sounds and vocals are better sampled at E-3 or higher.

Devilish Datatypes

I'd like to use the Workbench MultiView utility to show GIF and JPEG pictures but it doesn't handle these formats. I've read that MultiView uses Datatypes to decode the different image formats so can you get Datatypes for these formats? If so, where would I get them and where would they go on my system?

S Bean,
Kent.

Datatypes are a sadly neglected, powerful aspect of the Amigas operating system. MultiView does indeed support Datatypes in fact that's the only way anything can be done at all with it. There are very many different Datatypes available and they are not limited to image file formats! Sounds and other binary data

can be decoded to do various things if you have a Datatype to match the particular files you want to use.

There are several GIF and JPEG datatypes available. If you have a CD-ROM, you can find them on the Aminet CD in the Aminet/all/datatypes/ directory. Many of them don't have installation scripts and must be installed by hand. It's helpful to know the two places where the files must be installed. The file with a .datatype extension (eg GIF.datatype) goes on your Workbench disk/HD partition in classes/datatypes. The other files go in your dev's drawer on the same disk within the Datatypes directory. For instance 'GIF' and 'GifInfo' would reside there. Once installed MultiView would then display GIF pictures just fine. However, there are plenty of viewers available that have in-built support for most image types without needing Datatypes. You'll find some on the CD in the Aminet/gif/show directory.

Amiga 600?

Last month (August) a Ms Karen Hayes from Birmingham said Escplan to restart production of the A600. Is this true? Hope so!

I start an electronic engineering course at uni soon so I'll have loans and overdrafts to spend on lovely peripherals. I don't want to upgrade to a 1200 cos at uni we are using 68000 assembly language for microprocessor and control applications. Anyway, who needs 16 Meg + colours? Not I! By the way, do you happen to know if I can get Workbench/Kickstart 3.1 for my 2.04 Amiga 600? If so where from, how much etc?

Steve Godfrey

Escom aren't putting the A600 back into production, and you can't upgrade your A600 to OS 3.1. You can run straight 68000 code on an A1200, so why not spend your overdraft on one?

NO SAES PLEASE

We regret that we cannot respond to readers' queries by post or over the phone. Please do not include stamped addressed envelopes with your letters, as we simply don't have time to answer the thousands we receive. Responses are only possible through the pages of the magazine.

Back Issues



JULY 1995

- ON THE DISKS: Adorage 2.0, Powerbase v3.4, Arcade Shooker - full game.
- FEATURE: Step by step guide to the Net.
- INSIDE: First report from Germany on Escorn, LightWave 4 previewed, Cinema 4D, Scale M4400 reviewed, Viscorp, TM2 reviewed, Star Crusader, Big Red Adventure previewed.



AUGUST 1995

- ON THE DISKS: Clarissa 2.0 and exclusive demo of Cannon Vs Honda in SSF II.
- FEATURE: Trouble shooting on your Amiga
- INSIDE: DPaint 5 review, A look at the new A4000/60 with CyberVision graphics, Games include Colonization, Sensible Golf, Time Keepers, Player Manager 2.



SEPTEMBER 1995

- ON THE DISKS: OctaMED 5.04, Speris Legacy, Time Keepers.
- FEATURE: Sex and computers: we take an in-depth look at how much there is and what people think about it.
- INSIDE: Alpha Breed 3D, Gloom, SSFII, Brutal, ViceCop A500, Base Jumpers CD32.



OCTOBER 1995

- ON THE DISKS: PageStream 2.2, Fears, Citadel.
- FEATURES: Using your PageStream cover disk for DTP, Storage: HP's Roppies and CD-ROMs, Head to Head Gaming.
- INSIDE: Odyssey, Real 3D v3, PageStream 2.0i and a towering multimedia station reviewed.

AUGUST 1994-SOLD OUT

SEPTEMBER 1994

- ON THE DISKS: DirtMark 2, Music File Converter, plus a demo of The Cioe.
- FEATURE: 3D Special.
- INSIDE: Brilliance 2, Imagine 3, Theme Park, Universe, Kid Chaos and Dreamweaver.

OCTOBER 1994

- ON THE DISKS: DPaint 5 demo, Realtime Effects Generator 1.5, Storegram 3D picture maker and Dragontone demo.
- FEATURE: Storage special.
- INSIDE: Over 50 software and hardware products, Ruff 'n' Tumble, Little Divil, Detroit reviews.

NOVEMBER 1994

- ON THE DISKS: ProCalc v2 full program, VideoTracker 2, Football Glory demo.
- FEATURE: 191 amazing tips!
- REVIEWED: Guardian, Robinson's Requiem, and Super Stardust.

DECEMBER 1994

- ON THE DISKS: X-Cad Design, Xmas Theme Pack demo and Super Stardust demo.
- FEATURE: Word Processing guide.
- REVIEWED: Rendale 9402 Unlocked, Bass Station, Powerdrive, Mortal Kombat 2.

JANUARY 1995-SOLD OUT

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MARCH 1995

- ON THE DISKS: Modeler 3D, Easy Ledger demo, Vulture Before the War demo.
- FEATURE: Hook up your hi-fi and video to your Amiga for brilliant sound and vision.
- INSIDE: CD-ROM reviews, Frontier 2, Wizard Accelerator, Frontier 2, Bloodnet, Skeleton Crew, Sensi Fancy League.

APRIL 1995

- ON THE DISKS: MovieSetter, clip art and File International Soccer demo. PLUS free MovieSetter manual.
- FEATURE: Animation made easy.
- INSIDE: Power CD-ROM, PD Special, ATX, Turbo Trix, Dawn Patrol, Super League Manager, Baldies preview.

MAY 1995

- ON THE DISKS: ProDraw 3 (all new AGA Animaps), OctaMED 5 and Baldies demo.
- FEATURE: Two printers reviewed, rated and recommended.
- INSIDE: ECTS report, Brutal Preview, DPaint, Personal Paint, Photogenics and Brilliance compared, eight CD-ROMS reviewed.

JUNE 1995

- ON THE DISKS: Image FX 1.5 (all Amigas with 2MB), Ultimate Soccer Manager demo.
- FEATURE: Image processing - we show you how it's done!
- INSIDE: RAD speed test: Wizard 1230 II, Sine Apollo, Octamed 5 reviewed, Primal Rage, Sensible Golf previewed.

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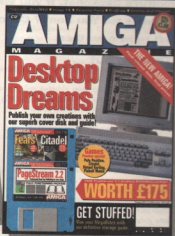
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Back chat

Letter of the month Better 'n some

I'm glad to see that Mat Bettinson has the bottle to stand up and state in print what many of us Amiga users have been saying for years. (Page 130 October 1995). It's about time some of you stick in the muds upgraded. Technology never stands still, yet we have to put up with the whining of Amiga 500s running Kickstart v1.2 and a poxy 5Mb of RAM. When will they realise that games like *Gloom* and *UFO Unknown* will not run on their system?

I know that without people like the original purchasers of the A500 and A1000 we wouldn't be able to enjoy the machines that we have today. Back in the early days of the Amiga I too owned an A500 with 5Mb of RAM and I thought it was the bee's knees. The catalyst that made me upgrade was the excellent game *Dungeon Master*. The RAM upgrade cost me an arm and a leg, but it was well worth it. It transformed my machine: no more multiple disk swaps when trying to duplicate an 800k floppy disk.

But that was the 1980s, when the A500 WAS the cutting edge of home computer technology. Time has moved on and with-in a couple of years the Amiga was overtaken by the PC. (Boo - ed). When Commodore released the A1200 I purchased one and upgraded it over the ensuing months with a GVP 68030 40MHz accelerator, a 210Mb hard drive a Zappo CD-ROM drive and 10Mb of RAM. The system works like a dream. Nothing clashes, software operates right out of the box, there are no 'out of memory' messages and no fiddling around for half an hour with IRQ's and autosearching, bats that other machines' users have to endure.

This is the beauty of the Amiga. It may not be the fastest, most powerful computer in the world. It is, however, the most user friendly and easy to use system that people can use straight out of the box, without having to have a degree in electronics. The way forward is to expand and upgrade, show the hardware and software companies that we are willing to spend money and not sit on your hands. Remember, this is a symbiotic arrangement: they need our money and we need their products to get the most out of our Amigas. Otherwise they will end up as just another expensive plastic coated pile of silicon in the bin.

Bravo, BRAVO!

A Mac that turns into an Amiga, the A1200's new price tag and Matt whipping up a controversy surrounding his points of view last month. All this and more in this month's backchat. If you want to join in you know where to write to. You don't? Check out the box on the bottom left right now then.

Thanks, but ...

And to think that I was going to write and ask if you could tell me anywhere where I could pick up PageStream2 from ... thank you, thank you and thrice, thank you. And for not raising the price like Amiga Format did ... thank you, thank you and thrice, thank you.

Claire Clift
Cardiff

Very good so far, a nice bit of praise in fact but ... sorry Claire, we had to put our price up. Despite every attempt to stave off a price increase for as long as possible the inevitable happened and, to cover increased paper and production costs (which have gone up a staggering 30%) we've had to increase our price by 26p. This increase doesn't in fact cover for all of our increased production costs, but we felt that you the consumer shouldn't be asked to bear the whole brunt of circumstances beyond both yours and our control.

So long!

I'm sorry to say this is the last ever letter I am ever writing to CU Amiga Magazine (I've written one before but it didn't get printed) and I will not be buying another issue. It's not that I resent you for not printing my letter, you probably get hundreds of them and obviously can't print all of them. It's not because you gave us a demo of DPaintV six months before it was released and had me waiting with bated breath for what was basically a shaky upgrade. It's certainly not because I think you are actually a damn good magazine. It's because I am buying a Playstation. Productivity is all right, and you and all the other magazines are full of related reviews and tutorials, but to be honest when it comes down to it I'm not very creative and have wasted a lot of money buying a printer and a genlock etc. I've given up. I've got a girlfriend and I'm getting a Playstation. Goodbye forever.

Barry McBride
Slough

An admirable self analysis and no mistake. But, for what it's worth (since Mr McBride claims he will not be reading this) good riddance! There's plenty

of creative people out there who will stick with the Amiga AND have girlfriends, wives, boyfriends or husbands and be happy with themselves. Some might even have a Playstation too but since it doesn't have a keyboard (unfortunately) it hardly lends itself to DTY.

Bettinsong and dance

What was that song and dance about last month in Matt Bettinson's Points Of View column? He seems to be implying that no decent games have emerged in the last couple of years until *Gloom* and *Alien Breed 3D*. Has he been living upside down with blinkers on his eyes since 1990? What about *Cannon Fodder*? What about *Sensible Soccer*? *Fire And Ice*? *Banshee*? *Star Trek*? *Frontier*? *Chaos Engine*? The list goes on. Come on Mat ... play some real games.

Trevor Baxter
Cirencester

Now that you mention it Mat Bettinson used to live upside down, but he denies ever wearing blinkers (he's an Aussie after all). You're not the only person who thinks ALL of the above titles warrant Mr. Bettinson taking a re-look at the scene. "I hate football games, they're crap". Was his response. The real point he was trying to make though was that publishers need to keep developing good games to see the Amiga through. For each of the games you've mentioned there were another five pieces of junk. Write to your favourite publishers now and get them moving.

I think not ...

Do Amiga Technologies really think they can sell the Amiga for £400? I want an upgrade but this is a bit too much. I've been with the Amiga for five years now (I have a A500 plus) and I think that they are asking too much for the machine, even if it has AGA graphics and all that. I want to stick with my Amiga but all the new applications are very expensive and require lots of memory and better graphics. I'm not satisfied with having to stick with my A500 but it looks as though I'll have to.

Mr. M D Harvey
Wakefield

If you have to stick with your A500 so be it. It's a good machine but you can't expect commercial

enterprises to keep producing new software which will work on your machine at a low price. Despite what you might think it's just not profitable, and the A500 is pretty primitive in terms of capability by today's standards. We are all Amiga fans and the A500 is dear to us. We would never put it down, but you have to be realistic. As for AT's £399 price point, yes it should be lower in our opinion too, but maybe they can't afford to sell it any cheaper. They are not the NHS. Nothing is free or subsidised and the Amiga has to prove itself a viable and profitable proposition if it is to survive.

Amiga emulator

I don't own an Amiga and don't have any plans to because I have a Macintosh SE30. Recently, I was at a friend's house and he showed me Macintosh software working on his Amiga 4000. I'm told this was done with a public domain emulator called ShapeShifter. Since it is possible to emulate a Macintosh on an Amiga, I deduce that the reverse must also be possible. I'd like to run some Amiga software and use it's multitasking and the much wider variety of games like *Sensible Soccer* available to Amiga users. Where can I get an Amiga emulator that will work on my SE30? How much would it cost?

A Mac User Birmingham

£399. Sorry, you'll have to buy a real Amiga, the MAC is just not as flexible as everyone says.

E-Mail boo-boo

I saw the details for your Internet E-Mail mailing-list published in the October CU Amiga. However, it did not seem possible to subscribe to any other E-Mail address except the one I send the E-Mail from. I'd like to be able to subscribe a different mail-box to the lists so the mail doesn't clog up my own mail-box. I'd really like to be able to participate in this mailing list so is it possible to subscribe another address and if so, how do I do it?

E-Mail enquiry

THE FAR SIDE

By GARY LARSON



The often romanticized image of cowboys and aliens

It is indeed possible to subscribe another mail-box to the Internet E-Mail mailing list other than the one you normally use. We accidentally left this out of the details. The correct format to include in the body text of your E-Mail is thus:

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New to comms

I am very new to comms and very new to internet E-Mail. If this message gets to you I shall be chuffed. I use an E-Mail system on the PC network at work. It's based on *Wordperfect* and is very easy to use. However, I find internet E-Mail excreeseemly foggy! My biggest gripe is to surf the super/hype/way you have to have the following: 2Mb of RAM which is permanently swallowed up by Amitecp, whether ya want it or not! You also need a hard drive as none of the progs will even fit onto floppies! My latest version of Amosac2 doesn't make enough temporary disk space and crashes a lot. It also looks for volume 'cjarvis' (which is my surname!!) when all I want to do is view GIFs! I am following the tutorial but as usual the authors never seem to have these problems. Would someone please write an 'all in' self-contained Internet/mail package!

Chris Jarvis
Via E-Mail

Subs complaint

Having subscribed to CU Amiga for two years while I was recently renewing my subscription I discovered that when a subscription is renewed there is no entry on your subs form for a free gift etc. Is this an oversight on the part of your subscription department or do you feel that any person that renews a subscription to CU doesn't deserve a gift or free offer? I trust this will be rectified in future and re-subscriptions will also have the ability to receive an incentive to continue with your rather excellent magazine.

PS, if you wish to send a subscription gift to me now, I'll have *Super Stardust A1200*.

Mark Dissington
Via E-Mail

Bit of a sore point this one and our marketing department have now acknowledged it. On all promotions we state that they are available for a limited period only, so, for instance, the *Super Stardust* one is now over. However, on your behalf and on the behalf of other subscribers we (the editorial team) are on the case and we'll see if we can get our marketing team (headed by the wonderful Fiona Malloch) to come up with a more satisfactory solution. ■

Clear The Air

Got something you want to let people know about? Then send it to us at CU Amiga Magazine, Priory Court 30-32 Farrington Lane, London EC1R 3AU or Email us at backchat@cu-amiga.demon.co.uk.

TEAM TALK

With the re-launch of the Amiga the whole team is in party mode. But what's the strangest party they've ever been to?

ALAN DYKES



I once went to this alleged 'party' where everyone was in sleeping bags. The idea was to stay 'in bed' for as long as possible. Pizzas were ordered regularly and the only reason you could get out of your sleeping bag was to go to the door for a glass or to the toilet to get rid of it again. I left quickly, but it went on for 48 hours.

LISA COLLINS



The strangest party I went to was this one in San Francisco. It was on a bus called the Green Tortoise which irregularly travels from New York to San Francisco. There were no seats on the bus, only cushions on the floor and it never stuck to a timetable. The whole journey was one big happy party!

TONY HORGAN



I like, went to this flat, right, and as soon as I got in the door I put an M5 in the microwave. Then I took off my shoes, phoned someone, got the food from the microwave and sat in front of a television for a while. Finally I composed a track on OctalEd and went to bed. Well... I've got to rest from partying some time.

MAT BETTINSON



Back in Darwin, a couple of days before Christmas one year, I got a bit casual and disorderly (I am ashamed to say) and ended up in a police cell. There were lots of other 'travellers' in there too and every time I tried to sleep a new one would come in with some booze and the party would start again. We all had 'Jail Party' t-shirts printed next day!

HELEN DANBY



Back in my Geth days I once gate-crashed this friend of a friend's party where everyone was dressed as an alien. Everything went well enough (which presumably means, for a Geth, that Helen sat in the corner and called all evening until The Cars were played) until some guy came up to me and asked what planet I was from. Imagine!

JOHN KENNEDY



I am a big Van Morrison fan and once I went to a fancy dress party where everyone had to pretend to be either Van Morrison or a character from his songs. All the girls had variations on the 'Straw Hat' theme (some of his songs) and all the blokes were had tattered and ready bald.

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Supply and Demand

There are thousands of CD32 owners out there just begging for some software. Yet still some publishers feel that there isn't enough demand out there to warrant a release, says Graftgold guru Andrew Braybrook.

CDs have been around for over 12 years now. Unit for unit, CDs are now the second most popular format, responsible for around 27% of the market. They are gaining on cartridge sales, and no wonder. They are cheaper, quicker to manufacture and can carry much more information. The sad thing is that most of these CD sales are for the PC, not the Amiga. A pity because adding CD audio and having no real storage limitations can produce much enhanced products.

Gimme Games

The Amiga has had a hard time lately but 3rd party manufacturers are still producing add-on CD drives for the A1200 and keeping them pretty much compatible with the CD32. Given that a full-blown game can take over 18 months to produce then games started before Commodore's untimely demise are still coming to fruition, and many are following guidelines to make them run OS legal. For you, the end-user, this means you should be able to get titles that can easily be installed on hard-disk or put onto CD with minimum fuss.

Indeed although Graftgold's first CD32 title took a while to sort out, being new technology for us, subsequent titles have been fairly straightforward. It took about four months to prepare an interface between *Fire & Ice* and AmigaDOS and then put in some AGA enhancements.

We also created about 50 minutes of CD audio for the game which allowed the sound-effects to occupy all four audio channels while the music was playing. This has added atmosphere to the game and reduced the effect of limiting the sound effects to one-at-a-time. Subsequently we have created CD versions of *Unidrum 2* and *Virocop* complete with their



own CD audio track.

No Demand?

Unfortunately we have thus far been unable to produce the two aforementioned products on CD because there is 'no demand' for Amiga CD products. Our publishers seem disinterested in the format despite the fact that the cost of producing the CDs is low and they would only have to sell in hundreds to recoup their costs. So at the moment we have no way of getting products that we have already created to the people that hopefully will want to buy them. What can we do? One option is for Graftgold to publish the games low-key by mail order. It's not really something we're geared up to do though. I thought publishers are supposed to be providing a service to developers? It's not much of a service if they say they don't want to publish certain versions that are already done.

To do it ourselves would involve us getting the manuals type-set, mastering the gold disk CD and then organising duplication. Then we would need to set up a service to take orders, bank cheques, pack

CDs into envelopes and lick stamps. But another plan might be for people to bombard publishers with phone-calls and letters asking for CD versions. It really isn't that much effort to do them.

There are a lot of CD-ROM drives out there and if magazines can justify cover-mounted CDs then there must be quite a few people that want them. The Amiga is big in UK and Germany but never made much of an impression in the U.S. So, if there is anyone out there that still wants CD software, I suggest you let someone somewhere know it, and don't leave it too late. The A1200 is still a great machine and I welcome its return to the shops and hope retailers will sell it, and the software – which they were so quick to drop a year ago. That sent shockwaves back through distributors and publishers to us developers which has thus far prevented us from beginning any new Amiga titles. We need to create a demand for software and not accept that the PC is the only way to go. It may be the last chance for the computer we love.

Andrew Braybrook

The opinions expressed in this article are not necessarily those held by CU Amiga Magazine. If you hold an opinion on this or any other related subject then email us at: CUAMIGA@cu-Amiga.demon.co.uk



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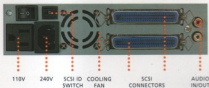
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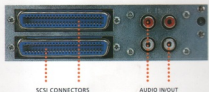
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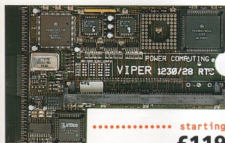
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